327 IAC 5-2-11.2 Public notice of comment period and public meetings for site-specific modification of water quality criteria and values; implementation of antidegradation; alternate mixing zone demonstrations; variances

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

Affected: IC 13-11-2; IC 13-15-4-1; IC 13-15-5-1; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 11.2. (a) This section is applicable to the following:

(1) An application for site-specific modification of Tier I water quality criteria and Tier II water quality values under 327 IAC 2-1.5-16(b).

(2) An application for an antidegradation demonstration under section 11.3(b)(4) of this rule.

(3) An application for an antidegradation exception under section 11.7(c) of this rule.

(4) An application for an alternate mixing zone under section 11.4(b)(4)(D) of this rule.

(5) An application for a variance under 327 IAC 5-3-4.1(c).

(b) Upon receipt of an application listed in subsection (a), the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with the following conditions:

(1) The commissioner shall provide notice of receipt of an application in the following manner:

(A) Publication of a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge for which the application was submitted.

(B) Send the notice to interested persons on either of the following mailing lists:

(i) The mailing list identified under 327 IAC 5-3-8(a).

(ii) The mailing list identified under 327 IAC 5-3-12(b)(1).

(C) Send the notice to the applicant.

(2) The notice under subdivision (1) shall contain the following:

(A) Name and address of the department.

(B) Name and address of the applicant.

(C) An identification of the type of application submitted, such as alternate mixing zone or variance.

(D) A brief description of the location of any existing or proposed discharge point subject to the application, including an identification of the receiving water.

(E) A brief description of the applicant's activities or operations that result in the discharge identified in the application.

(F) An identification of the substance for which the application was submitted.

(G) Name of an agency contact person, and an address and telephone number where interested persons may obtain further information, including a copy of the application.

(H) A brief description of the comment procedures and the procedures to request a public meeting.

(3) If requested, the commissioner shall hold a public meeting on the application in accordance with the following provisions:

(A) The commissioner shall provide notice of the public meeting as follows:

(i) Publication of a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge for which the application was submitted.

(ii) Send the notice to the following interested persons:

(AA) Persons on the mailing list identified under 327 IAC 5-3-8(a).

(BB) Persons on the mailing list identified under 327 IAC 5-3-12(b)(1).

(CC) Those persons that commented on the notice of receipt of the application.

(iii) Send the notice to the applicant.

(B) The notice required by clause (A) shall contain the date, time, and place of the public meeting, and the information required under subdivision (2).

(C) This meeting shall be held at least ten (10) days after the later of the following:

(i) The notice, in accordance with clause (A)(i) appears in the newspaper.

(ii) The postmark date of the written notice sent to interested parties and to the applicant in accordance with clause (A)(ii) and (A)(iii).

(D) The meeting shall be recorded by any of the following:

(i) Audio tape.

(ii) Video tape.

(iii) Any other method of accurately and completely recording the details of the meeting.

(E) The commissioner shall request the applicant to provide a summary and rationale for the application at the meeting.

(F) At the commissioner's discretion, a public meeting may be noticed and held without having first received a

request for a public meeting. In these instances, the notice for the public meeting may be contained in the notice of receipt of the application.

(4) The time period under IC 13-15-4-1 is hereby changed to increase the period by thirty (30) days for any permit application subject to the time period that is affected by the application. If a public meeting is requested, the time period under IC 13-15-4-1 is hereby changed to increase the period by an additional thirty (30) days.

(Water Pollution Control Board; 327 IAC 5-2-11.2; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1435; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378)

327 IAC 5-2-11.3 Great Lakes system dischargers antidegradation implementation procedures

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

Affected: IC 13-11-2-24; IC 13-15-5-1; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 11.3. (a) For all waters within the Great Lakes system, the commissioner shall ensure that the level of water quality necessary to protect existing uses is maintained. In order to achieve this requirement, and consistent with 40 CFR 131.10, water quality standards use designations must include all existing uses. Controls shall be established as necessary on point and nonpoint sources of pollutants to ensure that the criteria applicable to the designated use are achieved in the water and that any designated use of a downstream water is protected. Where water quality does not support the designated uses of a waterbody or ambient pollutant concentrations are greater than water quality criteria applicable to that waterbody, the commissioner shall not allow a lowering of water quality for the pollutant or pollutants that prevents the attainment of such uses or the water quality criterion.

(b) For high quality waters that are not designated as an outstanding state resource water, the commissioner shall ensure that no action resulting in a significant lowering of water quality occurs unless an antidegradation demonstration has been completed pursuant to subdivision (3) and the information thus provided is determined by the commissioner pursuant to subdivision (4) to adequately justify the proposed lowering of water quality. In allowing such degradation, the commissioner shall assure water quality adequate to protect existing uses fully. Further, the commissioner shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. The following provisions apply to high quality waters that are not designated as an outstanding state resource water:

(1) A significant lowering of water quality occurs when any of the following occur:

(A) A new or increased loading of any bioaccumulative chemical of concern (BCC) is proposed from any existing or new facility, either point source or nonpoint source, for which a new permit, permit modification, or other control document would be required, as a result of any activity, including, but not limited to, the following:

(i) Construction of a new regulated facility or modification of an existing regulated facility such that a new or modified permit is required.

(ii) Modification of an existing regulated facility operating under a current permit such that the production capacity of the facility is increased.

(iii) Addition of a new source of untreated or pretreated effluent containing or expected to contain any BCC to an existing wastewater treatment works, whether public or private.

(iv) A request for an increased limit in an applicable permit.

(v) Other deliberate activities that, based on the information available, could be reasonably expected to result in an increased loading of any BCC to any waters of the Great Lakes system.

(B) There is a new or increased permit limit for a substance that is not a BCC, from any existing or new facility, either point source or nonpoint source for which there is a permit or reviewable action, as a result of any activity, and the new or increased permit limit will result in both of the following:

(i) A calculated increase (calculated decrease for dissolved oxygen) in the ambient concentration of the substance outside of the designated mixing zone or volume, where applicable, in the receiving waterbody.

(ii) A lowering of water quality that is greater than a de minimis lowering of water quality. As used in this clause, “de minimis lowering of water quality” occurs if all of the following are satisfied for the substance under consideration and such a determination is consistent with applicable requirements and limitations in section 11.4 of this rule, including appropriate margin of safety allocations:

(AA) The proposed increase in mass discharged is less than ten percent (10%) of the unused loading capacity. The proposed increase in mass discharged shall be determined as follows:

$M_p - M_E$ = Proposed increase in mass discharged

Where: M_p = Monthly average mass effluent limitation for the parameter in the proposed discharge.

M_E = Monthly average mass effluent limitation for the parameter in the existing permit. If the existing permit does not contain a monthly average mass effluent limitation for the parameter, but does contain a weekly average or daily maximum mass limit, the existing weekly average or daily maximum permit limit shall be converted into a monthly average value to be used in this equation. If the existing permit does not contain a mass limit for the parameter, but does contain a concentration limit, this concentration limit shall be converted into a mass value, using the discharge flow determined under section 11.4(a)(9) of this rule, to be used in this equation. If the existing permit does not contain an effluent limit for the parameter, the actual monthly average mass discharged shall be used in this equation.

(BB) At least ten percent (10%) of the total loading capacity remains unused after the lowering of water quality.

(iii) The following definitions apply throughout this clause:

(AA) "Total loading capacity" means the product of the applicable water quality criterion times the sum of the existing effluent flow and the stream design flow for the waterbody in the area where the water quality is proposed to be lowered, expressed as a mass loading rate.

(BB) "Unused loading capacity" means that amount of the total loading capacity not utilized by point source and nonpoint source discharges. The unused loading capacity is established at the time the request to lower water quality is considered.

(C) Notwithstanding clauses (A) and (B), the following do not constitute a significant lowering of water quality:

(i) Changes in loadings of any substance within the existing capacity and processes, and that are covered by the existing applicable permit. These changes include, but are not limited to, the following:

(AA) Normal operational variability, including, but not limited to, intermittent increased discharges due to wet-weather conditions.

(BB) Changes in intake water pollutants not caused by the discharger.

(CC) Increasing the production hours of the facility, for example, adding a second shift.

(DD) Increasing the rate of production.

(ii) New limits for an existing permitted discharger that are not a result of changes in pollutant loading, and will not allow an increase in pollutant loading, including new limits that are a result of the following:

(AA) New or improved monitoring data.

(BB) New or improved analytical methods.

(CC) New or modified water quality criteria or values.

(DD) New or modified effluent limitations guidelines, pretreatment standards, or control requirements for POTWs.

(iii) The following actions:

(AA) Short term, temporary (weeks or months) lowering of water quality.

(BB) Bypasses that are not prohibited at 40 CFR 122.41(m) or section 8(11) of this rule.

(CC) New or increased discharges of a pollutant, when the facility withdraws intake water containing the pollutant from the same body of water, and the new or increased discharge of the pollutant is due solely to the presence of the pollutant in the intake.

(DD) New or increased discharges of a pollutant that is not a BCC, where there is a contemporaneous enforceable decrease in the actual loading of the pollutant from sources contributing to the same body of water such that there is no net increase in the loading of the pollutant to the same body of water.

(EE) New or increased discharges of a pollutant or pollutant parameter due to response actions pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (as defined in IC 13-11-2-24), as amended, corrective actions pursuant to the Resource Conservation and Recovery Act (RCRA), as amended, or similar federal or state authorities, undertaken to alleviate a release into the environment of hazardous substances, pollutants, or contaminants that may pose an imminent and substantial danger to public health or welfare.

(FF) New or increased discharges of a pollutant or pollutant parameter due to increasing the sewered area, connection of new sewers and customers, or acceptance of trucked-in wastes (such as septage and holding tank wastes) by a POTW, provided that the increase is within the design flow of the facility, there is no increased loading of BCCs from nondomestic wastes, and no significant change is expected in the characteristics of the wastewater discharged.

(GG) Increased discharges of a pollutant due to implementation of department-approved industrial or municipal controls on wet-weather flows, including combined sewer overflows and industrial storm water, when there is no net increase in the loading of the pollutant to the same body of water.

(HH) New or increased discharges of noncontact cooling water that will not increase the temperature of the receiving waterbody outside of the designated mixing zone, where applicable and will not require numeric WQBELs for toxic substances or WET as determined under section 11.5 of this rule.

(II) Discharges of storm water subject to a general permit under 327 IAC 15-5 (storm water run-off associated with construction activity) and 327 IAC 15-6 (storm water run-off associated with industrial activity).

(JJ) An action that will result in a new or increased discharge of a pollutant or pollutant parameter that is not a BCC, if the new or increased discharge is necessary to accomplish a reduction in the discharge of another pollutant or pollutant parameter and the commissioner determines the action will result in a net improvement in water quality in the waterbody. The commissioner may approve such an action only if:

(aa) the reduction in the discharge of the reduced pollutant exceeds the increase in the discharge of the new or increased pollutant;

(bb) the new or increased pollutant is determined to be significantly less bioaccumulative and toxic than the decreased pollutant; and

(cc) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge have been taken.

(KK) An action that will result in a new or increased discharge of a pollutant or pollutant parameter that is not a BCC, if the new or increased discharge is necessary to accomplish a reduction in the release of an air pollutant and the commissioner determines the action will result in a net environmental improvement. The commissioner may approve such an action only if:

(aa) the reduction in the discharge of the air pollutant is necessary to meet a state or federal air quality standard or will substantially reduce human exposure to hazardous air pollutants;

(bb) the reduction in the mass of air pollutant discharged represents a substantial reduction in the total mass released by the applicant; and

(cc) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge to the waterbody have been taken.

(LL) At the commissioner's discretion, new or increased discharges of a substance used to treat zebra mussels in an intake water pipe or structure.

(iv) As used in this clause, “same body of water” has the meaning set forth in section 11.5(b)(4)(B)(i) of this rule.

(2) The commissioner shall establish the following conditions in the permit applicable to the regulated facility:

(A) The permit shall prohibit the regulated facility from undertaking any deliberate action that would result in a new or increased discharge of a BCC or a new or increased permit limit for a pollutant or pollutant parameter that is not a BCC unless one (1) of the following is completed prior to the commencement of the action:

(i) Information is submitted to the commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality as defined under subdivision (1). Upon review of this information, the commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

(ii) An antidegradation demonstration submitted and approved in accordance with subdivisions (3) through (6).

(B) For POTWs:

(i) the permit shall prohibit the POTW from allowing a new or increased discharge of a BCC from:

(AA) an existing industrial user proposing to increase or add a process wastestream; or

(BB) a proposed new industrial user will have a process wastestream; and

the process wastestream contains a BCC at concentrations detectable using the most sensitive analytical method for the BCC contained in 40 CFR 136 or approved by the commissioner;

(ii) unless one (1) of the following is completed prior to commencement of the discharge:

(AA) Information is submitted to the commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality as defined under subdivision (1). Upon review of this information, the commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

(BB) An antidegradation demonstration is submitted and approved in accordance with subdivisions (3) through (6).

(C) Whether or not the permit contains a limitation for a BCC, the permit shall require monitoring for any BCC known or believed to be present in the permitted discharge, from any point or nonpoint source over which the permittee has control. If there is an increase in loading of a BCC, above normal variability and attributable to a deliberate action, the discharger shall notify the commissioner of the increase unless either:

(i) the discharger has submitted the information required under clause (A)(i) for the increase; or

(ii) an antidegradation demonstration for the increase has been approved under subdivision (5).

If the increase is determined to be a significant lowering of water quality, as defined under subdivision (1), the commissioner shall require reduction or elimination of the increase.

(D) Fact sheets prepared pursuant to 40 CFR 124.8 and 40 CFR 124.56 or 327 IAC 5-3-8 shall reflect any conditions developed under clause (A) or (B) and included in a permit.

(3) Any existing or proposed discharger seeking to significantly lower water quality in a high quality water must first submit an antidegradation demonstration for consideration by the commissioner. The antidegradation demonstration shall include the following:

(A) An identification of measures available to the existing or proposed discharger to minimize or prevent the proposed lowering, including, but not limited to, the following:

(i) For BCCs, identify any cost-effective pollution prevention alternatives and techniques that are available to the discharger that would eliminate or significantly reduce the extent to which the increased loading results in a significant lowering of water quality. As used in this item, "pollution prevention" has the meaning set forth in the federal Pollution Prevention Act of 1990 (42 USCA 13101 to 42 USCA 13109).

(ii) For all substances, the discharger shall identify alternative or enhanced treatment techniques that are available to the discharger that would eliminate or significantly reduce the extent to which the increased loading results in a significant lowering of water quality, the pollution reduction benefits associated with such techniques, and their costs relative to the cost of treatment necessary to achieve applicable effluent limitations. This submittal shall include an evaluation of the feasibility and costs of connecting to an existing publicly (or privately) owned treatment works. Pollution prevention measures may be identified as part of this process. As used in this item, "pollution prevention" means changes in production process technologies, materials, processes, operations, or procedures to reduce or eliminate the source of the pollutant.

(B) For all new or increased discharges, an identification of the positive and negative social or economic development and the benefits to the area in which the waters are located that will occur if the significant lowering of water quality is allowed. This includes, but is not limited to, the following:

(i) An evaluation of the baseline economic condition, including, but not limited to, the following:

(AA) The unemployment rate in the area.

(BB) The population in the area.

(CC) The average household income relative to state and national averages.

(DD) The percentage of the population living below the poverty level.

(ii) Information on the anticipated net positive impacts attributable to the activity that will result in the new or increased discharge, including, but not limited to, the following:

(AA) The increase in employment, or avoidance of a reduction in employment at the facility.

(BB) The reduction in the local unemployment rate attributable to the facility.

(CC) The total annual payroll of nonofficers for the new or increased employment, and the average annual wage for the new, nonofficer employees. In lieu of this information, the applicant may provide other information that quantifies the extent of the economic benefit to be provided to the area.

(DD) The increased tax revenues.

(EE) The increase in production level.

(FF) The increase in efficiency.

(GG) The extent to which an environmental or public health problem is corrected.

(HH) Industrial, commercial, or residential growth in the community.

(II) Other social or economic benefits to the community.

(iii) Information on the potential negative economic or social impacts to the community that may occur as a result of the activity that will result in the new or increased discharge, such as making the receiving water less attractive for recreation or causing a loss in tourism dollars.

(C) For all new or increased discharges, an identification of the potential adverse environmental or public health impacts attributable to the proposed significant lowering in water quality, including, but not limited to, the following:

(i) An identification of the potential impact of the significant lowering on the aquatic community structure and function, including important commercial or recreational sport fish species, and species that are unique or rare within the locality or the state (such as a mussel bed).

(ii) An identification of endangered or threatened species potentially impacted by the significant lowering.

(iii) The increased risk to human health due to the new or increased concentration of carcinogens or bioaccumulative chemicals of concern.

(iv) An identification of characteristics of the receiving waterbody that are unique or rare within the locality or state potentially impacted by the significant lowering.

(v) The location of the nearest downstream public water supply intake, if any.

(vi) An identification of all government or privately sponsored conservation projects that have specifically targeted improved water quality or enhanced recreational opportunities on the proposed receiving waterbody in the area of the new or increased discharge.

(vii) An identification of all other environmental permits the applicant has applied or will apply for that are attributable to the activity (such as a permit from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act).

(D) In lieu of the information required by clauses (A) through (C), dischargers proposing any of the actions listed in item (i) may submit the information required under item (ii) as follows:

(i) This clause is applicable to any of the following actions:

(AA) A response action pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (as defined in IC 13-11-2-24), as amended.

(BB) A corrective action pursuant to the Resource Conservation and Recovery Act (RCRA), as amended.

(CC) An action pursuant to similar federal or state authorities, including, but not limited to, the following:

(aa) An underground storage tank (UST) corrective action under IC 13-23-13.

(bb) A remediation of petroleum releases under IC 13-24-1.

(cc) A voluntary remediation under IC 13-25-5.

(dd) An abatement or correction of any polluted condition under IC 13-18-7.

(ii) The discharger may submit information to the commissioner that demonstrates that the action minimizes the proposed lowering of water quality, including, but not limited to, the following:

(AA) For BCCs, the action will utilize the most cost effective pollution prevention techniques available. As used in this subitem, “pollution prevention” has the meaning set forth in the federal Pollution Prevention Act of 1990 (42 USCA 13101 to 42 USCA 13109).

(BB) The action will utilize the most cost-effective treatment techniques available.

(4) Upon receipt of an antidegradation demonstration, the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with section 11.2 of this rule.

(5) Once the commissioner determines that the information provided by the discharger proposing a new or increased discharge is administratively complete, the commissioner shall make an antidegradation decision in accordance with the following:

(A) The commissioner shall deny the request to lower water quality if cost-effective measures necessary to prevent the proposed lowering are reasonably available or the action that would cause the lowering would not support important social and economic development in the area.

(B) If the discharger has demonstrated that cost-effective measures necessary to prevent the proposed lowering are not reasonably available, the commissioner may allow all or part of the proposed lowering to the extent that:

(i) cost-effective measures necessary to reduce the proposed lowering are reasonably available; and

(ii) the action that will cause the lowering will support important social and economic development in the area.

(C) In no event may the decision reached under this subsection allow water quality to be lowered below the minimum level required to fully support existing and designated uses.

(6) When the commissioner proposes an antidegradation decision, the tentative decision shall be summarized in the public notice form and incorporated into the draft permit and the fact sheet of the draft permit that is made available for public comment under 327 IAC 5-3-9. A final antidegradation decision shall be incorporated into the final permit and the fact sheet of a final NPDES permit.

(c) For waters designated as an outstanding national resource under 327 IAC 2-1.5-4, the commissioner shall ensure, through the application of appropriate controls on pollutant sources, that water quality is maintained and protected, except that a short term, temporary (weeks or months) lowering of water quality may be permitted by the commissioner. *(Water Pollution Control Board; 327 IAC 5-2-11.3; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1436; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378)*

327 IAC 5-2-11.4 Great Lakes system dischargers total maximum daily loads; wasteload allocations for point sources; load allocations for nonpoint sources; preliminary wasteload allocations

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

Affected: IC 13-11-2; IC 13-18-4-7; IC 13-18-4-8

Sec. 11.4. (a) This subsection applies to the establishment of total maximum daily loads (TMDLs) for all pollutants and pollutant parameters in the Great Lakes system. Where specified, the following conditions also apply to wasteload allocations (WLAs) calculated in the absence of TMDLs and to preliminary WLAs:

(1) At a minimum, TMDLs shall be established in accordance with the listing and priority setting process established in Section 303(d) of the Clean Water Act (CWA) and at 40 CFR 130.7. Where water quality standards cannot be attained immediately, TMDLs must reflect reasonable assurances that water quality standards will be attained in a reasonable period of time. TMDLs may be based on attaining water quality standards over a period of time, with specific controls on individual sources being implemented in stages. Determining the reasonable period of time in which water quality standards will be met is a case-specific determination considering a number of factors, including, but not limited to, the following:

(A) Receiving water characteristics.

(B) Persistence, behavior, and ubiquity of pollutants of concern.

(C) Type of remediation activities necessary.

(D) Available regulatory and nonregulatory controls.

(E) Requirements for attainment of water quality standards.

(2) An assessment and remediation plan that the commissioner has certified as meeting the requirements of this section pertaining to TMDLs and public participation requirements applicable to TMDLs, and that has been approved by EPA as meeting those requirements under 40 CFR 130.6, may be used in lieu of a TMDL for purposes of this section. Assessment and remediation plans under this section may include, but are not limited to, Lakewide Management Plans, Remedial Action Plans, and State Water Quality Management Plans. Also, any part of an assessment and remediation plan that also satisfies one (1) or more requirements under Section 303(d) of the CWA or implementing regulations may be incorporated by reference into a TMDL as appropriate. Assessment and remediation plans under this section shall be tailored to the level of detail and magnitude for the watershed and pollutant being assessed.

(3) TMDLs, WLAs calculated in the absence of a TMDL, and preliminary WLAs must ensure attainment of applicable water quality standards including all numeric and narrative water quality criteria set forth in 327 IAC 2-1.5-8, and Tier I criteria and Tier II values established under 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16.

(4) If a discharge contains one (1) or more substances for which a TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA was based on a human cancer criterion (HCC), human cancer value (HCV), human noncancer criterion (HNC), or human noncancer value (HNV), human health shall be protected from the potential adverse additive effects of mixtures of substances in an effluent in accordance with the following procedures:

(A) If an effluent for a particular discharger contains more than one (1) substance for which an HCC exists or

for which an HCC or an HCV can be calculated, the additivity of the mixture of carcinogens shall be addressed as follows:

(i) Except as provided in item (ii), the TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA based on an HCC or HCV shall be established to protect against additive effects possibly associated with simultaneous multiple chemical human exposure to carcinogens such that the following condition is met:

func {SUM {C sub {`i} over WLA sub {`i}}`✂ ~ 1;} For i = 1 to n

Where :

C = The adjusted TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA concentration of each separate carcinogen that shall be used in the calculation of reasonable potential in section 11.5 of this rule and WQBELs in section 11.6 of this rule.

WLA = The TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA concentration based on the HCC or HCV for each respective carcinogen.

n = Number of WLAs based on an HCC or HCV.

(ii) Notwithstanding item (i):

(AA) the commissioner may consider, upon submission of the discharger, the use of an alternate, scientifically-based, procedure for ensuring the aggregate risk of the mixture of carcinogens remains below one (1) in one hundred thousand (100,000); or

(BB) if information is available to the commissioner demonstrating that available scientific information does not support the assumption of additivity, the TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA shall not be adjusted for each such substance.

(B) If an effluent for a particular discharger contains more than one (1) substance for which a HNC exists or for which a HNC or HNV can be calculated, the additivity of the mixture of substances shall be addressed as follows:

(i) The incremental adverse effect of each substance shall be assumed to not be additive except as provided in item (ii).

(ii) If scientific information available to the commissioner demonstrates that the adverse effects of the components are additive, the TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA for each additive noncarcinogenic substance shall be established to protect against additive or effects possibly associated with simultaneous multiple chemical human exposure such that the following condition is met:

func{ SUM {N sub {`i} over WLA sub {`i}}~✂ ~ 1;} For i = 1 to n

Where :

N = The adjusted TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA concentration of each separate substance that shall be used in the calculation of reasonable potential in section 11.5 of this rule and WQBELs in section 11.6 of this rule.

WLA = The TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA concentration based on the HNC or HNV for each respective substance.

n = Number of WLAs based on an HNC or HNV.

(C) Notwithstanding the requirements of clauses (A) and (B), the toxicity equivalency factors (TEFs) and bioaccumulation equivalency factors (BEFs) for the chlorinated dibenzo-p-dioxins (CDDs) and chlorinated dibenzofurans (CDFs) shall

be accounted for as follows:

(i) The TEFs and BEFs in Table 11.4-1 in item (iv) shall be used when calculating a 2,3,7,8-TCDD toxicity equivalence concentration in effluent to be used when implementing both human health noncancer and cancer criteria. The chemical concentration of each CDDs and CDFs in effluent shall be converted to a 2,3,7,8-TCDD toxicity equivalence concentration in effluent by:

(AA) multiplying the chemical concentration of each CDDs and CDFs in the effluent by the appropriate TEF in Table 11.4-1 in item (iv);

(BB) multiplying each product from subitem (AA) by the BEF for each CDDs and CDFs in Table 11.4-1 in item (iv); and

(CC) adding all final products from subitem (BB).

(ii) The equation for calculating the 2,3,7,8-TCDD toxicity equivalence concentration in effluent is:

func{(TEC`) sub tcdd ``` = ``` SUM ` (C`) sub x `(TEF`) sub x` (BEF`) sub x }

Where: $(TEC)_{tcdd}$ = 2,3,7,8-TCDD toxicity equivalence concentration in effluent.

$(C)_x$ = Concentration of total chemical x in effluent.

$(TEF)_x$ = TCDD toxicity equivalency factor for x.

$(BEF)_x$ = TCDD bioaccumulation equivalency factor for x.

(iii) The 2,3,7,8-TCDD toxicity equivalence concentration in effluent shall be used when developing TMDLs, wasteload allocations in the absence of a TMDL, or preliminary wasteload allocations under this section.

(iv) The following values shall be used for TEFs and BEFs for CDDs and CDFs:

Table 11.4-1

Toxicity Equivalency Factors (TEF) and

Bioaccumulation Equivalency Factors (BEF)

for CDDs and CDFs

Congener	TEF	BEF
2,3,7,8-TCDD	1.0	1.0
1,2,3,7,8-PeCDD	0.5	0.9
1,2,3,4,7,8-HxCDD	0.1	0.3
1,2,3,6,7,8-HxCDD	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.05
OCDD	0.001	0.01
2,3,7,8-TCDF	0.1	0.8
1,2,3,7,8-PeCDF	0.05	0.2
2,3,4,7,8-PeCDF	0.5	1.6

1,2,3,4,7,8-HxCDF	0.1	0.08
1,2,3,6,7,8-HxCDF	0.1	0.2
2,3,4,6,7,8-HxCDF	0.1	0.7
1,2,3,7,8,9-HxCDF	0.1	0.6
1,2,3,4,6,7,8-HpCDF	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.4
OCDF	0.001	0.02

(5) TMDLs shall include WLAs for point sources and load allocations (LAs) for nonpoint sources, including natural background, such that the sum of these allocations is not greater than the loading capacity of the water for the pollutant addressed by the TMDL, minus the sum of a specified margin of safety (MOS) and any capacity reserved for future growth. The components of the TMDL are as follows:

(A) Nonpoint source LAs that shall be based on any of the following:

(i) Existing pollutant loadings if changes in loadings are not reasonably anticipated to occur.

(ii) Increases in pollutant loadings that are reasonably anticipated to occur.

(iii) Anticipated decreases in pollutant loadings if such decreased loadings are technically feasible and are reasonably anticipated to occur within a reasonable time period as a result of implementation of BMPs or other load reduction measures. In determining whether anticipated decreases in pollutant loadings are technically feasible and can reasonably be expected to occur within a reasonable period of time, technical and institutional factors shall be considered. These decisions are case-specific and should reflect the particular TMDL under consideration.

(iv) Where appropriate and where sufficient data are available, contributions to the water column from sediments inside and outside of any applicable mixing zones.

(v) Where appropriate and where sufficient data are available, nonpoint source discharges resulting from wet weather events.

Monitoring data for these LAs shall be collected and analyzed in order to validate the TMDL's assumptions, to verify anticipated load reductions, to evaluate the effectiveness of controls being used to implement the TMDL, and to revise the WLAs and LAs as necessary to ensure that water quality criteria shall be achieved within the time period established in the TMDL.

(B) Each TMDL shall include a margin of safety (MOS) sufficient to account for technical uncertainties in establishing the TMDL and shall describe the manner in which the MOS is determined and incorporated into the TMDL. The MOS may be provided by leaving a portion of the loading capacity unallocated or by using conservative modeling assumptions to establish WLAs and LAs. If a portion of the loading capacity is left unallocated to provide a MOS, the amount left unallocated shall be described. If conservative modeling assumptions are relied on to provide a MOS, the specific assumptions providing the MOS shall be identified.

(C) TMDLs may include reserved allocations of loading capacity to accommodate future growth and additional sources. Where such reserved allocations are not included in a TMDL, any increased loadings of the pollutant for which the TMDL was developed that are due to a new or expanded discharge shall not be allowed unless the TMDL is revised in accordance with these procedures to include an allocation for the new or expanded discharge.

(D) The sum of the WLAs is the portion of the loading capacity not assigned to nonpoint sources including background, or to an MOS, or reserved for future growth. Where appropriate and where sufficient data are available, WLAs shall also be developed for point source discharges resulting from wet weather events. Upon reissuance, NPDES permits for these point sources must include effluent limitations consistent with WLAs in EPA-approved or EPA-established TMDLs.

(6) If separate TMDLs are prepared for different segments of the same watershed, and the separate TMDLs each include WLAs for the same pollutant for one (1) or more of the same point sources, then WQBELs for that pollutant for the point sources shall be consistent with the most stringent of those WLAs in order to ensure attainment of all applicable water quality standards.

(7) TMDLs shall be sufficiently stringent so as to prevent accumulation of the pollutant of concern in sediments to levels injurious to designated or existing uses, human health, wildlife, and aquatic life.

(8) The representative background concentration of pollutants shall be established in accordance with this section to

develop TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs. Background loadings may be accounted for in a TMDL through an allocation to a single background category or through individual allocations to the various background sources as follows:

(A) As used in this subsection "background" represents all loadings resulting from the following:

(i) Flow from upstream waters into the specified watershed, waterbody, or waterbody segment for which a TMDL, WLA in the absence of a TMDL, or preliminary WLA for the purpose of determining the need for a WQBEL is being developed.

(ii) Atmospheric deposition or sediment release or resuspension.

(iii) Chemical reactions occurring within the watershed, waterbody, or waterbody segment.

(B) When determining what available data are acceptable for use in calculating background, the commissioner shall use best professional judgment, including consideration of the sampling location and the reliability of the data through comparison to reported analytical detection levels. Pollutant degradation and transport information may be considered when utilizing pollutant loading data. Where limited or no acceptable data exist, the commissioner may require the permittee to supply the necessary data. Best professional judgment shall be used to select the one (1) data set that most accurately reflects or estimates background concentrations when data in more than one (1) of the following data sets or categories exist:

(i) Acceptable available water column data.

(ii) Water column concentrations estimated through use of acceptable available caged or resident fish tissue data.

(iii) Water column concentrations estimated through use of acceptable available or projected pollutant loading data.

(C) The representative background concentration for a substance in the specified watershed, waterbody, or waterbody segment shall be established as follows:

(i) If all the values in the data set selected in clause (B) are at or above the limit of detection (LOD), then the background concentration is the geometric mean of that data set.

(ii) If the data set consists of values above and below the LOD, the following procedure shall be used to determine the representative background concentration:

(AA) Each value in the data set with a value less than the LOD (nondetect) shall be assigned the value (V). The geometric mean of this adjusted data set is the representative background concentration. The value (V) is determined as follows:

(BB) If information is available that indicates an alternate methodology for evaluating the data set would result in a background concentration more representative of actual conditions, this alternative methodology may be used in place of the methodology contained in subitem (AA) upon approval of the commissioner.

(iii) When all of the acceptable available data in a data set or category, such as water column, caged or resident fish tissue, or pollutant loading data, are below the LOD for a substance, and the most sensitive approved analytical method available for that substance was used, then all the data for that pollutant in that data set shall be assumed to be zero (0).

(iv) Notwithstanding items (i) through (iii), the representative background concentration of whole effluent toxicity (WET) shall be assumed to be zero (0) unless data are available that indicates that the discharge of the WET and any background WET are additive.

(9) The effluent flow used to develop TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs shall be determined as follows:

(A) For municipal, semipublic, and other sanitary or domestic wastewater discharges, the average design flow of the treatment facility shall be used.

(B) For industrial dischargers, the highest monthly average flow from the previous two (2) years of monitoring shall be used.

(C) Notwithstanding clauses (A) and (B), an alternate effluent flow value may be used, upon approval by the commissioner, if the discharger provides flow data that supports the alternate value (such as when a TMDL or WLA is calculated for wet weather conditions as provided in section 11.6(g)(4) of this rule). This flow data shall be included with the application for a new permit, a renewal of an existing permit, or with a request for modification of an existing permit, or when requested by the commissioner.

(D) TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs shall indicate the point source effluent flows used in the analyses.

(10) The portion of the receiving waterbody allocated for mixing for TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs shall be determined in accordance with subsection (b).

(11) TMDLs, WLAs in the absence of a TMDL, and preliminary WLAs shall be based on the assumption that a pollutant does not degrade. However, the commissioner may take into account degradation of the pollutant if each of the following conditions are met:

(A) Scientifically valid field studies or other relevant information demonstrate that degradation of the pollutant is expected to occur under the full range of environmental conditions expected to be encountered.

(B) Scientifically valid field studies or other relevant information address other factors that affect the level of pollutants in the water column, including, but not limited to, the following:

(i) Resuspension of sediments.

(ii) Chemical speciation.

(iii) Biological and chemical transformation.

(C) Notwithstanding clauses (A) and (B), TMDLs, WLAs in the absence of a TMDL, and preliminary WLAs conducted for chlorine and whole effluent toxicity shall be based on the assumption that the parameter does degrade unless data for the waterbody are available indicating otherwise.

(12) As used in this section, “loading capacity” refers to the greatest amount of loading that a water can receive without violating water quality standards. The loading capacity is initially calculated at the farthest downstream location in the watershed drainage basin. The maximum allowable loading consistent with the attainment of each applicable numeric criterion or value for a given pollutant is determined by multiplying the applicable criterion or value by the flow at the farthest downstream location in the tributary basin at the design flow condition described under subsection (b) and by using appropriate conversion factors. This loading is then compared to the loadings at sites within the basin to assure that applicable numeric criteria or values for a given pollutant are not exceeded at all applicable sites. The lowest load is then selected as the loading capacity.

(13) The ambient water quality characteristics used to develop TMDLs, WLAs calculated in the absence of a TMDL, or preliminary WLAs shall be determined as follows:

(A) For ammonia (as N), metals dependent on hardness, and pentachlorophenol, the appropriate water quality characteristics shall be obtained at a location

downstream of the point of discharge, or for Lake Michigan, outside the applicable mixing zone and shall be determined as follows:

(i) For ammonia (as N), the seventy-fifth percentile of the pH and temperature. If a seasonal TMDL, WLA calculated in the absence of a TMDL, or preliminary WLA is developed for ammonia, the pH and temperature data shall be obtained from the appropriate seasonal period.

(ii) For metals dependent on hardness, the fiftieth percentile of the hardness.

(iii) For pentachlorophenol, the fiftieth percentile of the temperature.

(B) If any of the data required under clause (A) are not available for the waterbody, the data shall either be obtained from similar nearby streams, or the permittee will be required to obtain the necessary data. For discharges to Lake Michigan, data from Lake Michigan shall be required.

(C) The use of the data required in clause (A) is intended to determine values of those water quality characteristics that are representative of those characteristics at design conditions. If it is demonstrated that an alternate method of determining these characteristics for a specific receiving waterbody would result in values more representative of the characteristics at design conditions, then this alternate method may be used to determine the water quality characteristics.

(b) The following requirements shall be applied in establishing the portion of the receiving waterbody allocated for mixing for TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs:

(1) The following procedures shall be used to establish the portion of the receiving waterbody allocated for mixing for TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs for a BCC:

(A) For purposes of this subsection, new and existing discharges are determined as follows:

(i) New discharges are defined as:

(AA) discharges from new Great Lakes dischargers; or

(BB) new or expanded discharges from an existing Great Lakes discharger.

(ii) Existing discharges are defined as all discharges of BCCs not included in item (i).

(B) There shall be no mixing zone available for a new discharge of a BCC to the Great Lakes system. WLAs established through TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs for a new discharge of a BCC shall be set equal to the most stringent applicable water quality criteria or values for the BCC.

(C) A mixing zone may be allocated for a BCC for an existing discharge to the Great Lakes system pursuant to subdivisions (2) and (3) until January 1, 2004, except for a discharge into the open waters of Lake Michigan. WLAs established through TMDLs, WLAs established in the absence of TMDLs, and preliminary WLAs for all discharges, both new and existing, into the open waters of Lake Michigan shall be set equal to the most stringent applicable water quality criterion or value for the BCC.

(D) Except as provided in clauses (E) and (F), NPDES permits shall not authorize mixing zones for existing discharges of a BCC to the Great Lakes system after January 1, 2004. After January 1, 2004, WLAs established through TMDLs, WLAs

established in the absence of TMDLs, and preliminary WLAs for all discharges of a BCC to the Great Lakes system shall be set equal to the most stringent applicable water quality criterion or value for the BCC.

(E) The commissioner may grant mixing zones for any existing discharge of a BCC to the Great Lakes system beyond the date specified in clause (D) where it can be demonstrated, on a case-by-case basis, that failure to grant a mixing zone would preclude water conservation measures that would lead to the overall load reduction of the BCC, even though higher concentrations of the BCC occur in the effluent. Such mixing zones must also be consistent with subdivisions (2) and (3).

(F) The commissioner may grant mixing zones, consistent with subdivisions (2) and (3), beyond the date specified in clause (D) for any existing discharge of a BCC to the Great Lakes system upon the request of a discharger subject to the following limited circumstances:

(i) The commissioner determines the following:

(AA) The discharger is in compliance with and will continue to implement all applicable technology-based treatment and pretreatment requirements of Sections 301, 302, 304, 306, 307, 401, and 402 of the CWA, and is in compliance with its existing NPDES water quality-based effluent limitations, including those based on a mixing zone.

(BB) The discharger has reduced and will continue to reduce the loading of the BCC for which a mixing zone is requested to the maximum extent possible.

(ii) In making the determination in item (i), the commissioner shall consider the following information submitted by the discharger:

(AA) The availability, feasibility, cost effectiveness, and environmental benefits of additional controls or pollution prevention measures for reducing and ultimately eliminating the BCC for that discharger, including those used by similar dischargers. As used in this item, “pollution prevention” has the meaning set forth in the federal Pollution Prevention Act of 1990 (42 USCA 13101 to 42 USCA 13109).

(BB) Whether the discharger or affected communities will suffer unreasonable economic effects if the mixing zone is eliminated.

(CC) The extent to which the discharger will implement an ambient monitoring plan to ensure compliance with water quality criteria at the edge of any authorized mixing zone or to ensure consistency with any applicable TMDL or such other strategy consistent with this section.

(DD) Other information the commissioner deems appropriate.

(iii) Any exceptions to the mixing zone elimination provision for an existing discharge of a BCC granted under this clause shall comply with the following:

(AA) Not result in any less stringent limitations than those existing upon or after the effective date of this rule.

(BB) Not likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the Endangered

Species Act (ESA) or result in the destruction or adverse modification of such species' critical habitat.

(CC) Be limited to one (1) permit term unless the commissioner makes a new determination in accordance with this subdivision for each successive permit application in which a mixing zone for the BCC is sought.

(DD) Reflect all information relevant to the size of the mixing zone considered under item (ii).

(EE) Protect all designated and existing uses of the receiving water.

(FF) Meet all applicable aquatic life, wildlife, and human health criteria and values at the edge of the mixing zone and, as appropriate, within the mixing zone or be consistent with any appropriate TMDL or such other strategy consistent with this section.

(GG) Ensure the discharger has developed and conducted a pollutant minimization program for the BCC if required to do so under section 11.6 of this rule.

(HH) Ensure that alternative means for reducing BCCs elsewhere in the watershed are evaluated.

(G) For each draft NPDES permit that would allow a mixing zone for one (1) or more BCCs after January 1, 2004, the fact sheet or statement of basis for the draft permit, shall:

(i) specify the mixing provisions used in calculating the permit limits; and

(ii) identify each BCC for which a mixing zone is proposed.

(2) The following addresses conditions for deriving TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs for open waters of Lake Michigan, inland lakes, and other waters of the Great Lakes system with no appreciable flow relative to their volumes:

(A) For discharges into the open waters of Lake Michigan, the following requirements apply:

(i) To prevent acute toxicity to aquatic life, WLAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs shall be determined as follows:

(AA) For allocations based on acute aquatic life criteria or values, the CMC shall not be exceeded outside the zone of initial dilution and the final acute value (FAV) shall not be exceeded in the undiluted discharge, unless a mixing zone demonstration is conducted and approved under subdivision (4), in which case the CMC shall be met outside the alternative mixing zone.

(BB) For allocations implementing an acute whole effluent toxicity (WET) criterion, 1.0 TU_a shall not be exceeded in the undiluted discharge, unless a mixing zone demonstration is conducted and approved pursuant to subdivision (4), in which case 0.3 TU_a shall be met outside the alternative mixing zone.

(ii) To prevent chronic toxicity to aquatic life, human health, and wildlife, WLAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs shall be determined as follows:

(AA) For allocations based on chronic criteria or values (CCC or SCV; HNC or HNV; HCC or HCV; or WC or WV), the chronic criteria or value shall not be exceeded in the undiluted discharge unless an alternative mixing zone is demonstrated as appropriate in a mixing zone demonstration conducted pursuant to subdivision (4).

(BB) For allocations implementing a chronic effluent toxicity (WET) criterion, 1.0 TU_c shall

not be exceeded in the undiluted discharge unless an alternative mixing zone is demonstrated as appropriate in a mixing zone demonstration conducted pursuant to subdivision (4), in which case 1.0 TU_c shall be met outside the discharge-induced mixing zone.

(iii) WLAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs based on the criterion for sulfates, total dissolved solids fluorides, or dissolved iron under 327 IAC 2-1.5-8(j) shall ensure that the criteria not be exceeded in the undiluted discharge unless an alternative mixing zone is demonstrated as appropriate in a mixing zone demonstration conducted pursuant to subdivision (4).

(iv) If mixing zones from two (2) or more proximate sources interact or overlap, the combined effect must be evaluated to ensure that applicable criteria and values will be met in the area where any applicable mixing zones overlap.

(v) In no case shall a mixing zone be granted that exceeds the area where discharge-induced mixing occurs.

(B) For discharges into inland lakes and other waters of the Great Lakes system with no appreciable flow relative to their volumes (other than the open waters of Lake Michigan), no mixing zone will be allowed and water quality criteria will apply to the undiluted discharge.

(C) Appropriate mixing zone assumptions to be used in calculating load allocations for nonpoint sources shall be determined on a case-by-case basis.

(D) In no case shall a mixing zone be granted that would likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the ESA or result in the destruction or adverse modification of such species' critical habitat.

(3) The following describes conditions for deriving TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs for tributaries of the Great Lakes system that exhibit appreciable flows relative to their volumes:

(A) The following stream design flows shall be used unless data exist to demonstrate that an alternative stream design flow is appropriate for stream-specific and pollutant-specific conditions:

(i) For purposes of calculating a TMDL, WLAs in the absence of a TMDL, or preliminary WLAs, using a steady-state model, the stream design flows shall be as follows:

(AA) For an acute aquatic life criterion or value or an acute aquatic WET criterion, when a high rate diffuser is used, the one (1) day, ten (10) year stream design flow ($Q_{1,10}$).

(BB) For a chronic aquatic life criterion or value or a chronic aquatic WET criterion, the seven (7) day, ten (10) year stream design flow ($Q_{7,10}$).

(CC) For a drinking water human health criterion or value, the harmonic mean flow at the point of drinking water intake.

(DD) For a nondrinking water human health criterion or value, the harmonic mean flow at the point of discharge.

(EE) For a wildlife criterion or value, the ninety (90) day, ten (10) year flow ($Q_{90,10}$).

(ii) TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs calculated using dynamic modelling do not need to incorporate the stream design flows specified in item (i).

(iii) TMDLs, WLAs in the absence of TMDLs, and preliminary WLAs calculated for intermittent or controlled discharges may use alternate stream design flows if these alternate design flows will ensure compliance with water quality criteria.

(B) To prevent acute toxicity, WLAs and LAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs shall be determined as follows:

(i) For allocations based on acute aquatic life criteria or values, the final acute value (FAV) shall not be exceeded in the undiluted discharge unless the discharger utilizes a submerged, high rate diffuser outfall structure (or the functional equivalent) that provides turbulent initial mixing and minimizes organism exposure time; and a mixing zone demonstration is conducted and approved under subdivision (4), in which case the CMC shall be met outside the discharge-induced mixing zone.

(ii) For allocations implementing an acute whole effluent toxicity (WET) criterion, 1.0 TU_a shall not be exceeded in the undiluted discharge unless the discharger utilizes a submerged, high rate diffuser outfall structure (or the functional equivalent) that provides turbulent initial mixing and minimizes organism exposure time; and a mixing zone demonstration is conducted and approved under subdivision (4), in which case 0.3 TU_a shall be met outside the discharge-induced mixing zone.

(C) To protect aquatic life, wildlife, and human health from chronic effects, including chronic whole effluent toxicity, WLAs and LAs established in a TMDL, WLAs in the absence of a TMDL, and preliminary WLAs

shall be calculated using a dilution fraction no greater than twenty-five percent (25%) of the stream design flow unless a mixing zone demonstration under subdivision (4) is conducted and approved.

(D) If mixing zones from two (2) or more proximate sources interact or overlap, the combined effect must be evaluated to ensure that applicable criteria and values will be met in the area where any applicable mixing zones overlap.

(E) In no case shall a permitting authority grant a mixing zone that would likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the ESA or result in the destruction or adverse modification of such species' critical habitat.

(4) An alternate mixing zone that is allowed under subdivision (2) or (3) may be granted upon the request of the discharger subject to the following requirements:

(A) Any discharger seeking a mixing zone other than that specified by subdivision (2) or (3), shall submit an application for a mixing zone demonstration for consideration by the commissioner. The alternate mixing zone application must do the following:

(i) Document the characteristics and location of the outfall structure, including whether technologically-enhanced mixing will be utilized.

(ii) Document the amount of dilution occurring at the boundaries of the proposed mixing zone and the size, shape, and location of the area of mixing, including the manner in which diffusion and dispersion occur.

(iii) For sources discharging to the open waters of Lake Michigan, define the location at which discharge-induced mixing ceases.

(iv) Document the physical, including substrate character and geomorphology, chemical, and biological characteristics of the receiving waterbody, including whether the receiving waterbody supports indigenous, endemic, or naturally occurring species.

(v) Document the physical, chemical, and biological characteristics of the effluent.

(vi) Document the synergistic effects of overlapping mixing zones or the aggregate effects of adjacent mixing zones.

(vii) Show whether organisms would be attracted to the area of mixing as a result of the effluent character.

(B) The commissioner may grant the alternate mixing zone if the discharger demonstrates the following:

(i) The mixing zone would not interfere with or block passage of fish or aquatic life.

(ii) The level of the pollutant permitted in the waterbody would not likely jeopardize the continued existence of any endangered or threatened species listed under Section 4 of the ESA or result in the destruction or adverse modification of such species' critical habitat.

(iii) The mixing zone would not extend to drinking water intakes.

(iv) The mixing zone would not impair or otherwise interfere with the designated or existing uses of the receiving water or downstream waters.

(v) The mixing zone would not promote undesirable aquatic life or result in a dominance of nuisance species.

(vi) By allowing the additional mixing:

(AA) substances will not settle to form objectionable deposits;

(BB) floating debris, oil, scum, and other matter in concentrations that form nuisances will not be produced; and

(CC) objectionable color, odor, taste, or turbidity will not be produced.

(C) In no case shall a mixing zone for a discharge into the open waters of Lake Michigan be granted that exceeds the area where discharge-induced mixing occurs.

(D) Upon receipt of an application for an alternate mixing zone demonstration, the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with section 11.2 of this rule.

(5) Except for discharges into the open waters of Lake Michigan, notwithstanding subdivisions (2), (3), and (4), the commissioner may deny any mixing zone for a discharge or for a criterion for any substance in a discharge based upon a determination of adverse human health, aquatic life, or wildlife effects. The commissioner shall identify and document the rationale for this decision.

(6) For discharges into the open waters of Lake Michigan, if all of the conditions for approval of an alternate mixing zone are met in accordance with subdivision (4), the alternate mixing zone shall be granted unless the commissioner determines that the mixing zone should be denied based upon a consideration of harm to human health, aquatic life, or wildlife. The commissioner shall evaluate all available information, including information submitted by the public,

relevant to the consideration of harm to human health, aquatic life, or wildlife. The commissioner shall identify the harm to human health, aquatic life, or wildlife, and document the rationale for this decision.

(7) The commissioner's evaluation of a mixing zone for a discharge into the open waters of Lake Michigan under subdivisions (2), (4), and (6) shall constitute the evaluation required by IC 13-18-4-7. Any decision regarding the granting or denial of a mixing zone for a discharge into Lake Michigan shall be included in the public notice of the tentative decision on the draft new, renewed, or modified permit. The basis for the tentative decision, including the commissioner's rationale for concluding whether or not the requirements of IC 13-18-4-7 are satisfied, shall be included in the briefing memo or fact sheet that accompany the tentative decision on the draft new, renewed, or modified permit.

(c) Wasteload allocations calculated in the absence of a TMDL and preliminary WLAs shall be determined using the conservation of mass equations as follows unless an alternate methodology is approved by the commissioner:

(1) For the calculations contained within this subsection, the following apply:

(A) WQC_c = The chronic water quality criterion or value. A chronic water quality criterion or value is any of the following:

(i) Criterion continuous concentration (CCC) or secondary chronic value (SCV).

(ii) WET criterion in chronic toxic units (1.0 TU_c).

(iii) Human noncancer criterion (HNC) or human noncancer value (HNV).

(iv) Human cancer criterion (HCC) or human cancer value (HCV).

(v) Wildlife criterion (WC) or wildlife value (WV).

(vi) The criteria for sulfates, total dissolved solids, fluorides, and dissolved iron under 327 IAC 2-1.5-8(j).

(B) WQC_a = The criterion maximum concentration (CMC) or secondary acute value (SAV) or three-tenths (0.3) TU_a for WET.

(C) FAV = Final acute value = two (2) times the CMC or SAV.

(D) Q_e = The facility effluent flow as determined by subsection (a)(9).

(E) Q_w = The portion of the receiving waterbody allocated for mixing pursuant to subsection (b).

(F) C_b = The representative background concentration determined by subsection (a)(8).

(G) MR = Mixing zone ratio =
func{{{Q sub w} over {Q sub e}}} .

(H) Q_z = The zone of initial dilution.

(2) Wasteload allocations for discharges into tributaries that exhibit appreciable flows relative to their volumes based on protection from acute aquatic effects shall be determined as follows:

(A) For a discharge without a high rate diffuser (or its functional equivalent), the equation resulting in the lesser WLA shall be used:

(i) WLA = FAV (or 1.0 TU_a for WET); or

(ii)
func{{WLA ```=````{WQC sub a`(Q sub e ```+```Q sub z`)
```-```(Q sub z`)`(C sub b`)} OVER Q sub e}}

(B) For a discharge with a high rate diffuser (or its functional equivalent), the following equation shall be used:
func{WLA ```=````{WQC sub a`(Q sub e ```+```Q sub w`)
```-```(Q sub w`)`(C sub b`)} OVER Q sub e}

(3) Wasteload allocations for tributaries that exhibit appreciable flows relative to their volumes based on protection from chronic effects shall be determined as follows:
func{WLA ```=````{WQC sub c`(Q sub e ```+```Q sub w`)
```-```(Q sub w`)`(C sub b`)} OVER Q sub e}

(4) Wasteload allocations for discharges into the open waters of Lake Michigan based on protection from acute aquatic effects shall be determined as follows:

(A) For a discharge without an approved alternate mixing zone, the equation resulting in the lesser WLA shall be used:
```

(i) WLA = FAV (or 1.0 TU_a for WET); or

(ii)

func{WLA ```=````{WQC sub a`(Q sub e ```+```Q sub z`) ```-```(Q sub z`)`(C sub b`)} OVER Q sub e}

(B) For a discharge with an approved alternate mixing zone, the following equation shall be used:

$$WLA = (WQC_a)(1 + MR) - (C_b)(MR)$$

(5) Wasteload allocations for the open waters of Lake Michigan based on protection from chronic effects shall be determined as follows:

$$WLA = (WQC_c)(1 + MR) - (C_b)(MR)$$

(d) Notwithstanding this section, the pollutants contained in this subsection shall be addressed as follows:

(1) The pH requirements contained in 327 IAC 2-1.5-8(c)(2) and 327 IAC 2-1.5-8(j) apply to the undiluted discharge.

(2) The bacteriological criteria contained in 327 IAC 2-1.5-8(e) apply to the undiluted discharge.

(3) Models, approved by the commissioner, that ensure compliance with the applicable water quality criteria for the following parameters shall be used:

(A) Dissolved oxygen criteria contained in 327 IAC 2-1.5-8(c)(3), 327 IAC 2-1.5-8(d)(1), and 327 IAC 2-1.5-8(j).

(B) Thermal requirements contained in 327 IAC 2-1.5-8(c)(4) and 327 IAC 2-1.5-8(d)(2).

(C) Criteria for the protection of public water supplies contained under 327 IAC 2-1.5-8(f).

(D) Criteria for the protection of industrial water supplies contained in 327 IAC 2-1.5-8(g).

(Water Pollution Control Board; 327 IAC 5-2-11.4; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1441; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3379)

327 IAC 5-2-11.5 Great Lakes system dischargers determination of reasonable potential to exceed water quality standards

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

Affected: IC 13-11-2; IC 13-18-4

Sec. 11.5. (a) If the commissioner determines that a pollutant or pollutant parameter (either conventional, nonconventional, a toxic substance, or whole effluent toxicity) is or may be discharged into the Great Lakes system at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable narrative or numeric water quality criteria or value under 327 IAC 2-1.5, the commissioner shall incorporate WQBELs in an NPDES permit that will ensure compliance with the criteria or value. The commissioner shall exercise best professional judgment, taking into account the source and nature of the discharge, existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and, where appropriate, the dilution of the effluent in the receiving water. In all cases, the commissioner shall use any valid, relevant, representative information pertaining to the discharge of the pollutant.

(b) If the commissioner determines that a substance is or may be discharged into the Great Lakes system at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any numeric criterion for a toxic substance contained in 327 IAC 2-1.5-8(b)(3), Table 8-1, 327 IAC 2-1.5-8(b)(5), Table 8-3, 327 IAC 2-1.5-8(b)(6), Table 8-4, a criterion for ammonia contained under 327 IAC 2-1.5-8(c)(5), a criterion for sulfates, total dissolved solids, fluorides, or dissolved iron under 327 IAC 2-1.5-8(j), or a Tier I criterion or Tier II value determined under 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16, the commissioner shall incorporate WQBELs in an NPDES permit for the discharge of that pollutant and in all cases, the commissioner shall use any valid, relevant, representative information pertaining to the discharge of the substance as follows:

(1) When facility-specific effluent monitoring data for a substance are available, the commissioner may take into account the source and nature of the discharge, existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and, where appropriate, the dilution of the effluent in the receiving water in making the determination whether to develop preliminary effluent limitations (PELs) and comparing those effluent limitations to the projected effluent quality (PEQ) of the discharge in accordance with the following procedures:

(A) The commissioner shall develop PELs for the discharge of a pollutant from a point source using the following procedures:

(i) The commissioner shall develop preliminary WLAs for the discharge of the pollutant from the point source to protect human health, wildlife, acute aquatic life, and chronic aquatic life, based upon the following:

(AA) Any existing numeric criterion for a toxic substance contained in 327 IAC 2-1.5-8(b)(3), Table 8-1, 327 IAC 2-1.5-8(b)(5), Table 8-3, 327 IAC 2-1.5-8(b)(6), Table 8-4, or

327 IAC 2-1.5-8(c)(5).

(BB) Where there is no existing numeric criterion, the commissioner shall calculate a Tier I criterion for such substance for the protection of human health, wildlife, and aquatic life using the methodologies under 327 IAC 2-1.5-11 (aquatic life), 327 IAC 2-1.5-14 (human health), 327 IAC 2-1.5-15 (wildlife), and 327 IAC 2-1.5-16 (site-specific modifications).

(CC) Where there is insufficient data to calculate a Tier I criterion, the commissioner shall calculate a Tier II value for such substance for the protection of human health and aquatic life using the methodologies under 327 IAC 2-1.5-12 (aquatic life), 327 IAC 2-1.5-14 (human health), and 327 IAC 2-1.5-16 (site-specific modifications).

(DD) Where there is insufficient data to calculate a Tier II value, the commissioner shall apply the procedure in subdivision (3) to determine whether data must be generated to calculate a Tier II value.

(ii) The commissioner shall develop preliminary WLAs for the discharge of sulfates, total dissolved solids, fluorides, or dissolved iron, in addition to the preliminary WLAs developed for these parameters under item (i), based on the numeric criteria for these substances under 327 IAC 2-1.5-8(j) when applicable.

(iii) Section 11.4(c) of this rule shall be used as the basis for determining preliminary WLAs in accordance with items (i) and (ii).

(iv) The commissioner shall develop PELs consistent with the preliminary WLAs developed under items (i) through (iii), and in accordance with the procedures for converting WLAs into WQBELs under section 11.6 of this rule.

(B) The commissioner shall determine the projected effluent quality (PEQ) as follows:

(i) When monthly average data are available, at least three (3) data points over the period of a month, the monthly PEQ shall be determined as follows:

(AA) The commissioner shall identify the number of monthly averages of the effluent data and the coefficient of variation of the monthly averages of the effluent data.

(BB) The commissioner shall obtain the appropriate multiplying factor from Table 11.5-1 in subsection (h) based on the information obtained in subitem (AA).

(CC) The maximum of the monthly average values shall be multiplied by the multiplying factor determined under subitem (BB) to determine the monthly PEQ.

(ii) When monthly average data is not available, the monthly PEQ shall be identical to the daily PEQ determined under item (iii). An alternate method of determining the monthly PEQ may be used if the applicant demonstrates that this alternate method results in a monthly PEQ representative of actual conditions at the facility.

(iii) The daily PEQ shall be determined as follows:

(AA) The commissioner shall identify the number of daily effluent samples and the coefficient of variation of the daily effluent samples.

(BB) The commissioner shall obtain the appropriate multiplying factor from Table 11.5-1 in subsection (h) based on the information obtained in subitem (AA).

(CC) The maximum of the daily effluent samples shall be multiplied by the multiplying factor determined under subitem (BB) to determine the daily PEQ.

(iv) The coefficient of variation shall be calculated as the ratio of the standard deviation of the daily or monthly effluent data divided by the arithmetic average of the effluent data, except that where there are fewer than ten (10) data points the coefficient of variation shall be specified as six-tenths (0.6).

(v) In lieu of the procedures under items (i) through (iv), the commissioner shall allow the use of an alternate procedure for the determination of the PEQ if the applicant demonstrates that the alternate statistical procedure meets the following criteria:

(AA) Is a scientifically defensible statistical method.

(BB) Specifies the daily PEQ as the ninety-fifth percentile of the distribution of the projected population of daily values of the facility-specific effluent monitoring data.

(CC) Specifies the monthly PEQ as the ninety-fifth percentile of the distribution of the projected population of monthly average values of the facility-specific effluent monitoring data.

(DD) Accounts for and captures the long term daily and monthly variability of the effluent quality.

(EE) Accounts for limitations associated with sparse data sets.

(FF) Assumes a lognormal distribution of the facility-specific effluent data unless otherwise shown by the effluent data set.

(C) The commissioner shall establish WQBELs in the NPDES permit for each substance that:

(i) the monthly PEQ developed under clause (B) exceeds the monthly PEL developed under clause (A); or

(ii) the daily PEQ developed under clause (B) exceeds the daily PEL developed under clause (A).

(2) When facility-specific effluent monitoring data for a substance are not available, the commissioner shall exercise best professional judgment, taking into account the source and nature of the discharge, existing controls on point and nonpoint sources of pollution, and, where appropriate, the dilution of the effluent in the receiving water:

(A) for a new Great Lakes discharger, to develop an estimated monthly and daily PEQ necessary to make a determination under this subsection; or

(B) for an existing Great Lakes discharger, to determine whether it is necessary to require the applicant to collect the data required to make a determination under this subsection.

(3) The commissioner shall develop the necessary data to calculate Tier II values where such data does not currently exist as follows:

(A) Except as provided in clauses (B) and (D) or subdivision (4), for each toxic substance that a permittee reports as known or believed to be present in its effluent, or that the commissioner reasonably believes may be present in the effluent, and for which pollutant data sufficient to calculate Tier II values for noncancer human health, acute aquatic life, or chronic aquatic life do not exist, the commissioner shall take the following actions:

(i) For those effects (noncancer human health, acute aquatic life, or chronic aquatic life) for which sufficient data do not exist, the commissioner shall use all available, relevant information, including quantitative structure activity relationship (QSAR) information and other relevant toxicity information, to estimate ambient screening values for such pollutant that will protect humans from health effects other than cancer, and aquatic life from acute and chronic effects.

(ii) Using the procedures under subdivision (1)(A), the commissioner shall develop PELs for the discharge of the pollutant from the point source to protect human health, acute aquatic life, and chronic aquatic life, based upon the estimated ambient screening values.

(iii) The commissioner shall compare the PEQs developed according to the procedures under subdivision (1)(B) to the PELs developed under item (ii). If the monthly or daily PEQ exceeds the respective monthly or daily PEL, the commissioner shall generate or require the permittee to generate the data necessary to derive Tier II values for noncancer human health, acute aquatic life and chronic aquatic life.

(iv) The data generated under item (iii) shall be used in calculating a Tier II value as required under subdivision (1). The calculated Tier II value shall be used in calculating the PELs under subdivision (1)(A). These PELs shall be used for purposes of determining whether a WQBEL must be included in the permit under subdivision (1)(C).

(B) With the exception of bioaccumulative chemicals of concern (BCCs), the commissioner is not required to apply the procedures under clause (A) or include WQBELs to protect aquatic life for any pollutant discharged by an existing point source into the Great Lakes system if the following occur:

(i) There is insufficient data to calculate a Tier I criterion or Tier II value for aquatic life for the pollutant.

(ii) The permittee has demonstrated that the whole effluent does not exhibit acute or chronic toxicity.

(iii) The permittee has demonstrated, through a biological assessment, that there are no acute or chronic effects on aquatic life in the receiving water. Upon request by the permittee, the commissioner may determine that a biological assessment is not necessary to evaluate the impact of the pollutant on the receiving stream after considering:

(AA) the characteristics of the pollutant;

(BB) the concentration of the pollutant in the effluent;

(CC) the effluent flow; and

(DD) the biological and physical characteristics of the receiving waterbody.

(C) Nothing in clause (A) or (B) shall preclude or deny the right of the commissioner to:

(i) determine, in the absence of the data necessary to derive a Tier II value, that the discharge of the pollutant will cause, have the reasonable potential to cause, or contribute to an excursion above a narrative criterion for water quality; and

(ii) incorporate a WQBEL for the pollutant into an NPDES permit.

(D) If the commissioner develops a WQBEL consistent with clause (C) that is at least as stringent as a WQBEL that would have been developed based upon the Tier II value or values for that pollutant, the commissioner may require the permittee to generate the data necessary to derive a Tier II value or values for that pollutant.

(4) The determinations under this subdivision shall be made on a pollutant-by-pollutant, outfall-by-outfall basis. This subdivision applies only in the absence of an EPA-approved TMDL applicable to the discharge, or in the absence of an assessment and remediation plan submitted and approved in accordance with section 11.4(a)(2) of this rule. The following procedures shall be used in the consideration of intake pollutants in determining reasonable potential:

(A) As used in this subdivision and section 11.6(i) of this rule, "intake pollutant" means a pollutant that is present in waters of the state at the time it is withdrawn from such waters by the discharger or other facility, such as a public water supply, supplying the discharger with intake water.

(B) As used in this subdivision and section 11.6(i) of this rule, an intake pollutant is considered to be from the same body of water as the discharge if the following conditions exist:

(i) The commissioner finds that the intake pollutant would have reached the vicinity of the outfall point in the receiving water within a reasonable period had it not been removed by the permittee. This finding may be deemed established if:

(AA) the representative background concentration of the pollutant in the receiving water, as determined under section 11.4(a)(8) of this rule, (excluding any amount of the pollutant in the facility's discharge) is similar to or greater than that in the intake water;

(BB) there is a direct hydrological connection between the intake and discharge points (the water at the point of intake naturally flows toward the water at the point of discharge); and

(CC) any difference in a water quality characteristic (such as temperature, pH, and hardness) between the intake and receiving waters does not result in an adverse impact on the receiving water.

(ii) The commissioner may also consider other site-specific factors relevant to the transport and fate of the pollutant to make the finding in a particular case that a pollutant would or would not have reached the vicinity of the outfall point in the receiving water within a reasonable period had it not been removed by the permittee.

(iii) An intake pollutant from ground water may be considered to be from the same body of water if the commissioner determines that the pollutant would have reached the vicinity of the outfall point in the receiving water within a reasonable period had it not been removed by the permittee, except that such a pollutant is not from the same body of water to the extent that the ground water contains the pollutant partially or entirely due to human activity, such as industrial, commercial, or municipal operations, disposal actions, or treatment processes.

(iv) Notwithstanding any other provision in this clause, an intake pollutant shall be considered to be from the same body of water if the permittee's intake point is located on Lake Michigan and the outfall point is located on a tributary of Lake Michigan and the following conditions are met:

(AA) The representative background concentration of the pollutant in the receiving water, as determined under section 11.4(a)(8) of this rule, (excluding any amount of the pollutant in the facility's discharge) is similar to or greater than that in the intake water.

(BB) Any difference in a water quality characteristic (such as temperature, pH, and hardness) between the intake and receiving waters does not result in an adverse impact on the receiving water.

(C) The commissioner may use the procedure to determine reasonable potential described in this subdivision in lieu of the procedures contained under subdivisions (1) through (3) provided the following conditions are met:

(i) The commissioner may determine that there is no reasonable potential for the discharge of an intake pollutant or pollutant parameter to cause or contribute to an excursion above a narrative or numeric water quality criterion within an applicable water quality standard when a discharger demonstrates to the satisfaction of the commissioner (based upon information provided in the permit application or other information deemed necessary by the commissioner) that:

(AA) the facility does not contribute any additional mass of the intake pollutant to its wastewater;

(BB) the facility withdraws one hundred percent (100%) of the intake water containing the pollutant from the same body of water into which the discharge is made;

(CC) the facility does not alter the intake pollutant chemically or physically in a manner that would cause adverse water quality impacts to occur that would not occur if the pollutants were left in-stream;

(DD) the facility does not cause an increase in the intake pollutant concentration at the edge of the mixing zone, or at the point of discharge if a mixing zone is not allowed, as compared to the pollutant concentration in the intake waterbody unless the increased concentration does not cause or contribute to an excursion above an applicable water quality standard; and

(EE) the timing and location of the discharge would not cause adverse water quality impacts to occur that would not occur if the intake pollutant were left in the waterbody.

(ii) If a discharge of an intake pollutant or pollutant parameter is not able to qualify under item (i), the commissioner may decide not to impose WQBELs on the discharge, if the following conditions are met:

(AA) The discharge consists of one (1) or more internal wastestreams that do qualify (qualifying wastestreams) under item (i) and one (1) or more internal wastestreams that do not qualify (nonqualifying wastestreams) under item (i).

(BB) For nonqualifying wastestreams composed entirely of storm water, the permittee accepts permit conditions for the storm water wastestream that the commissioner determines to be necessary to protect the water quality of the receiving waterbody. The requirements imposed shall be as if the storm water wastestream discharged directly into the receiving waterbody and shall be consistent with requirements imposed on other similar storm water discharges to the waterbody.

(CC) For nonqualifying wastestreams not composed entirely of storm water, the permittee accepts WQBELs on each of the nonqualifying wastestreams that have a reasonable potential for the discharge of the intake pollutant or pollutant parameter to cause or contribute to an excursion above a narrative or numeric water quality criterion as determined using the procedures under subdivisions (1) through (3). For purposes of determining reasonable potential and developing WQBELs for these nonqualifying wastestreams, the preliminary wasteload allocations and wasteload allocations in the absence of a TMDL shall be determined as if these nonqualifying wastestreams discharged directly into the receiving waterbody without combining with the qualifying wastestreams.

(iii) Upon a finding under item (i) or (ii) that a pollutant in the discharge does not cause, have the reasonable potential to cause, or contribute to an excursion above an applicable water quality standard, the commissioner is not required to include a WQBEL in the facility's permit for the intake pollutant provided:

(AA) the NPDES permit fact sheet or statement of basis includes a specific determination that there is no reasonable potential for the discharge of an intake pollutant to cause or contribute to an excursion above an applicable narrative or numeric water quality criterion and references appropriate supporting documentation included in the administrative record;

(BB) the permit requires all influent, effluent, and ambient monitoring necessary to demonstrate that the conditions in item (i) or (ii) are maintained during the permit term; and

(CC) the permit contains a reopener clause authorizing modification or revocation and reissuance of the permit if new information indicates changes in the conditions under item (i) or (ii).

(iv) Absent a finding under item (i) or (ii) that the discharge of an intake pollutant or pollutant parameter does not cause, have the reasonable potential to cause, or contribute to an excursion above an applicable water quality criterion, the commissioner shall use the procedures contained under subdivisions (1) through (3) to determine whether the discharge of that pollutant causes, has the reasonable potential to cause, or contribute to an excursion above an applicable narrative or numeric water quality criterion.

(5) Notwithstanding this subsection, if the commissioner determines that the geometric mean of a pollutant in fish tissue samples collected from a waterbody exceeds the tissue basis of a toxic substance, after consideration of the variability of the pollutant's bioconcentration and bioaccumulation in fish the following provisions apply:

(A) If such pollutant is a BCC, each facility that discharges detectable levels of the BCC to that water has the reasonable potential to cause or contribute to an excursion above a water quality criterion for that BCC and the commissioner shall establish a WQBEL for such pollutant in the NPDES permit for each such facility.

(B) If such pollutant is not a BCC, the commissioner may determine that any or all of the facilities that

discharge detectable levels of the pollutant to that water have the reasonable potential to cause or contribute to an excursion above a water quality criterion for that toxic substance and the commissioner shall establish a WQBEL for such pollutant in the NPDES permit for each such facility.

(c) Except as provided in subdivision (3), where the commissioner determines that the whole effluent toxicity (WET) of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any numeric interpretation of a narrative WET criterion contained in 327 IAC 2-1.5-8, the commissioner shall incorporate WQBELs for WET in the NPDES permit and in all cases, the commissioner shall use any valid, relevant, or representative information pertaining to the discharge of WET as follows:

(1) When facility-specific WET effluent data are available, the commissioner may take into account the source and nature of the discharge, existing controls on point and nonpoint sources of pollution, the variability of the WET in the effluent, and, where appropriate, the dilution of the effluent in the receiving water in making the determination to develop effluent limitations for WET. The WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable WET criterion contained under 327 IAC 2-1.5, when effluent-specific information demonstrates the following:

(A) The acute WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above an applicable acute WET criterion applied to the undiluted discharge, when effluent-specific information demonstrates the following:

$$(TU_a)(F) \leq 0.2$$

Where: TU_a = The geometric mean of the measured acute toxicity values expressed in acute toxic units (TU_a or TU_c). Individual toxicity values may be estimated for the missing endpoint using a default acute-chronic ratio (ACR) of ten (10), when data exist for chronic WET, but not for acute WET.

F = Fraction of the measured toxicity values greater than the preliminary wasteload allocation for acute WET determined under section 11.4(c) of this rule (fraction failed).

(B) The acute WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above an applicable acute WET criterion applied outside an alternate mixing zone, when effluent-specific information demonstrates the following:

$$F \leq 0.2$$

Where: F = Fraction of the measured toxicity values greater than the preliminary wasteload allocation for acute WET determined under section 11.4(c) of this rule (fraction failed). Individual toxicity values may be estimated for the missing endpoint using a default acute-chronic ratio (ACR) of ten (10), when data exist for chronic WET, but not for acute WET.

(C) The chronic WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above an applicable chronic WET criterion, when effluent-specific information demonstrates the following:

func{{{(TU sub c`)`(Q SUB e`)`(F`)} OVER {(Q SUB {w}``+``Q SUB e`)}~ >= ~ 0.2}}

Where: TU_c = The geometric mean of the measured chronic toxicity values expressed in chronic toxic units. Individual toxicity values may be estimated for the missing endpoint using a default acute-chronic ratio (ACR) of ten (10), when data exist for acute WET, but not for chronic WET.

Q_e = The effluent flow rate as determined under section 11.4(a)(9) of this rule.

Q_w = The portion of the receiving waterbody allocated for mixing as determined under section 11.4(b) of this rule.

F = Fraction of the measured toxicity values greater than the preliminary wasteload allocation for acute or chronic WET determined under section 11.4(c) of this rule (fraction failed).

(2) When WET data are not available, the commissioner shall exercise best professional judgment, taking into account the source and nature of the discharge, existing controls on point and nonpoint source of pollution, and, where appropriate, the dilution of the effluent in the receiving water to determine whether it is necessary to impose WET requirements in accordance with the following:

(A) For a new Great Lakes discharger, the commissioner shall determine whether it is necessary to impose WET limitations.

(B) For an existing Great Lakes discharger, whether it is necessary to require the applicant to collect the data required to make a determination under this subsection. The commissioner may include in the NPDES permit the following conditions to generate additional data and control toxicity if found:

(i) WET testing requirements to generate the data needed to adequately characterize the toxicity of the effluent to aquatic life.

(ii) A toxicity reduction evaluation and a schedule to comply with WET limits if any toxicity testing

data indicate that the WET of an effluent is or may be discharged at levels that will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable WET criterion.

(iii) WET limits that become effective upon completion of the compliance schedule.

(3) Limitations on whole effluent toxicity are not necessary where the commissioner demonstrates in the fact sheet or briefing memo of the NPDES permit that chemical-specific limits for the effluent are sufficient to attain and maintain the applicable narrative water quality criteria for WET.

(d) Once the commissioner has determined in accordance with this section that a WQBEL must be included in an NPDES permit, the commissioner shall do the following:

(1) Rely upon the WLA established for the point source either as part of any EPA approved TMDL prepared under section 11.4 of this rule, or as part of an assessment and remediation plan developed and approved in accordance with section 11.4(a)(3) of this rule, or, in the absence of such TMDL or plan, calculate WLAs for the protection of acute and chronic aquatic life, wildlife, and human health in accordance with the provisions for developing wasteload allocations under section 11.4 of this rule.

(2) Develop water quality-based effluent limitations using these WLAs in accordance with section 11.6 of this rule.

(e) The commissioner may require monitoring for a pollutant or pollutant parameter even if it is determined that a WQBEL in the NPDES permit for that pollutant or pollutant parameter is not required.

(f) In addition to this section, effluent limitations shall be established to comply with all other applicable state and federal laws and regulations, including technology-based requirements and antidegradation policies.

(g) Notwithstanding subsection (b) or (c), the commissioner shall not impose WQBELs for a discharge consisting solely of once-through noncontact cooling water, except in accordance with the following:

(1) The commissioner may require a WQBEL based on an acute aquatic criterion for a substance or acute WET when information is available indicating that such a limit is necessary to protect aquatic life unless the discharger is able to demonstrate that the presence of the substance or WET is due solely to its presence in the intake water.

(2) The commissioner shall establish limitations or other requirements in the permit for the noncontact cooling water wastestream to prevent impairment of the receiving waterbody if a valid biological assessment of the receiving waterbody indicates that the noncontact cooling water discharge impairs an existing or designated use of the waterbody, exclusive of thermal impacts from a discharge for which alternative thermal effluent limitations have been established in accordance with Section 316(a) of the CWA and 327 IAC 5-7.

(3) If a substance is present at elevated levels in the noncontact cooling water wastestream due to improper operation or maintenance of the cooling system, and this substance is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above a numeric criterion for a toxic substance as determined under subsection (b), WQBELs shall be established using the procedures in sections 11.4 and 11.6 of this rule.

(4) If the permittee uses or proposes to use additives in the noncontact cooling water wastestream, the additives shall be evaluated using the reasonable potential procedures contained under this section to determine whether WQBELS are necessary for the wastestream.

(5) If the source of the noncontact cooling water wastestream is contaminated ground water, the provisions of this subsection do not apply to the discharge of the substances contaminating the ground water.

(6) If one (1) or more wastestreams consisting solely of noncontact cooling water are combined with one (1) or more wastestreams not consisting solely of noncontact cooling water, the provisions of this subsection may still be applied to the wastestreams consisting solely of noncontact cooling water if, for the wastestreams that do not consist solely of noncontact cooling water, the following requirements are imposed:

(A) For each of the wastestreams composed entirely of storm water, permit conditions that the commissioner determines to be necessary to protect the water quality of the receiving waterbody shall be imposed. The requirements imposed shall be as if the storm water wastestream discharged directly into the receiving waterbody and shall be consistent with requirements imposed on other similar storm water discharges to the waterbody.

(B) For each of the wastestreams not composed entirely of storm water, each wastestream shall be evaluated to determine if there is a reasonable potential for the discharge of a pollutant or pollutant parameter to cause or contribute to an excursion above a narrative or numeric water quality criterion as determined using the procedures in this section. For purposes of determining reasonable potential and developing WQBELs for these wastestreams, the preliminary wasteload allocations and wasteload allocations in the absence of a TMDL shall be determined as if these wastestreams discharged directly into the receiving waterbody without combining with the wastestreams consisting solely of noncontact cooling water.

(7) As used in this subsection, “once-through noncontact cooling water” means water used for cooling that does not come into direct contact with any raw material, intermediate product, final product, or waste product and makes one (1)

or two (2) passes for the purpose of removing waste heat.

(h) The following table establishes the multiplying factors to be used in subsection (b):

Table 11.5-1
Reasonable Potential Multiplying Factors

Number of Samples	Coefficient of Variation																				
	0.05	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
1	1.2	1.4	1.9	2.6	3.6	4.7	6.2	8.0	10.1	12.6	15.5	18.7	22.3	26.4	30.8	35.6	40.7	46.2	52.1	58.4	64.9
2	1.1	1.3	1.6	2.0	2.5	3.1	3.8	4.6	5.4	6.4	7.4	8.5	9.7	10.9	12.2	13.6	15.0	16.4	17.9	19.5	21.1
3	1.1	1.2	1.5	1.8	2.1	2.5	3.0	3.5	4.0	4.6	5.2	5.8	6.5	7.2	7.9	8.6	9.3	10.0	10.8	11.5	12.3
4	1.1	1.2	1.4	1.7	1.9	2.2	2.6	2.9	3.3	3.7	4.2	4.6	5.0	5.5	6.0	6.4	6.9	7.4	7.8	8.3	8.8
5	1.1	1.2	1.4	1.6	1.8	2.1	2.3	2.6	2.9	3.2	3.6	3.9	4.2	4.5	4.9	5.2	5.6	5.9	6.2	6.6	6.9
6	1.1	1.1	1.3	1.5	1.7	1.9	2.1	2.4	2.6	2.9	3.1	3.4	3.7	3.9	4.2	4.5	4.7	5.0	5.2	5.5	5.7
7	1.1	1.1	1.3	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9
8	1.1	1.1	1.3	1.4	1.6	1.7	1.9	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0	4.2	4.3
9	1.1	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.8	2.9	3.1	3.2	3.4	3.5	3.6	3.8	3.9
10	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.9	2.0	2.2	2.3	2.4	2.6	2.7	2.8	3.0	3.1	3.2	3.3	3.4	3.6
11	1.0	1.1	1.2	1.3	1.4	1.6	1.7	1.8	1.9	2.1	2.2	2.3	2.4	2.5	2.7	2.8	2.9	3.0	3.1	3.2	3.3
12	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.0
13	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.5	2.6	2.7	2.8	2.9
14	1.0	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.6	2.7
15	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.4	2.5	2.5
16	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.4
17	1.0	1.1	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.2	2.2	2.3	2.3
18	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.2
19	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.1
20	1.0	1.1	1.1	1.2	1.2	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0
30	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5
40	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3
50	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
60	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
70	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
80	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8
90	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
100	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7

(Water Pollution Control Board; 327 IAC 5-2-11.5; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1450; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3379)

327 IAC 5-2-11.6 Great Lakes system dischargers establishment of water quality-based effluent limitations (WQBELs)

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

Affected: IC 13-11-2; IC 13-18-4

Sec. 11.6. (a) The NPDES permit shall include conditions necessary to achieve water quality standards established under 327 IAC 2-1.5, including narrative water quality criteria. The numeric water quality criteria set forth in 327 IAC 2-1.5-8 and Tier I criteria and Tier II values established under 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16 shall not be enforceable against any point source discharger until translated into effluent limitations that are incorporated in NPDES permits in accordance with this article.

(b) Total maximum daily loads (TMDLs) and wasteload allocations (WLAs) developed under section 11.4 of this rule shall provide the basis for numeric water quality-based effluent limitations (WQBELs) established in NPDES permits for point sources discharging to waters within the Great Lakes system. If a variance has been granted from a water quality criterion under 327 IAC 2-1.5-17 and 327 IAC 5-3-4.1, WQBELs for the pollutant that is the subject of the variance shall be calculated on the basis of the variance rather than the water quality criterion.

(c) The following procedure shall be used to calculate WQBELs using the WLAs, including WLAs for whole effluent toxicity (WET), developed under section 11.4 of this rule:

(1) This subsection assumes that effluent data follow a log-normal distribution. If a discharger is able to demonstrate that the effluent data for a pollutant does not follow a log-normal distribution, and provides an alternate distribution that more accurately describes the data, this alternate distribution may be used in lieu of the procedures in this subsection.

(2) The following procedures shall be used to translate a WLA based on a dissolved criterion into a total recoverable WLA used in the determination of WQBELs:

(A) Unless site-specific translators are determined in accordance with clause (B), the following translators shall be used to translate a dissolved WLA based on an acute or chronic dissolved aquatic water quality criterion into a total recoverable WLA to be used in the determination of total recoverable WQBELs in an NPDES permit:

Table 11.6-1

Metals Translators

Dissolved to Total Recoverable[1]

Substances	Acute Translators	Chronic Translators
Arsenic (III)	1.000	1.000
Cadmium	0.944	0.909
Chromium (III)	0.316	0.860
Copper	0.960	0.960
Mercury	0.850	0.850
Nickel	0.998	0.997
Selenium	0.922	0.922
Zinc	0.978	0.986

[1] Divide a dissolved WLA derived from an acute aquatic water quality criterion by the acute translator and divide a dissolved WLA derived from a chronic aquatic water quality criterion by the chronic translator.

(B) A discharger or proposed discharger may request the use of an alternate translator by using site-specific data. The discharger must conduct a site-specific study to identify the ratio of the dissolved fraction to the total recoverable fraction for a metal in the receiving waterbody outside the mixing zone. If the discharger provides an acceptable study, and other provisions of 327 IAC 2-1.5 and this article are satisfied (such as antibacksliding and antidegradation), the commissioner shall use the site-specific translators to convert a dissolved WLA into a total recoverable WLA. A translator derived for one (1) discharge into a waterbody segment may be applied to other discharges on the same waterbody segment if the translator would adequately

represent the site-specific conditions applicable to the other discharges.

(3) For the equations contained within this subsection the following apply:

(A) $Z_{99} = 2.326$ (99th percentile probability basis).

(B) CV = coefficient of variation = ratio of the standard deviation to the mean. A value of six-tenths (0.6) will be used for the CV unless the discharger demonstrates that an alternate CV is more representative of the variability of the pollutant in the effluent.

(4) The first step in this procedure is to calculate a long term average (LTA) for each WLA determined under section 11.4 of this rule. These LTAs are calculated as follows:

(A) The LTA_A protective of acute aquatic life effects shall be calculated as follows:

Where: $\sigma^2 = \ln(CV^2 + 1)$.

WLA_A = WLA determined under section 11.4 of this rule using acute aquatic criteria or values or acute toxic units and, if appropriate, translated from a dissolved WLA to a total recoverable WLA in accordance with subdivision (2). This WLA is expressed as a one (1) day maximum.

(B) The LTA_C protective of chronic aquatic life effects shall be calculated as follows:

Where: $\sigma_4^2 = \ln(CV^2/4 + 1)$.

WLA_C = WLA determined under section 11.4 of this rule using criteria for sulfates, total dissolved solids, fluorides, and dissolved iron under 327 IAC 2-1.5-8(j), chronic aquatic criteria or values, or chronic toxic units and, if appropriate, translated from a dissolved WLA to a total recoverable WLA in accordance with subdivision (2). This WLA is expressed as a four (4) day average.

(C) The LTA_H protective of human health life effects shall be calculated as follows:

Where: $\sigma_{30}^2 = \ln(CV^2/30 + 1)$.

WLA_H = WLA determined under section 11.4 of this rule using criteria or values for the protection of human health. This WLA is expressed as a thirty (30) day average.

(D) The LTA_W protective of wildlife effects shall be calculated as follows:

Where : $\sigma_{30}^2 = \ln(CV^2/30 + 1)$.

WLA_W = WLA determined under section 11.4 of this rule using wildlife criteria or values. This WLA is expressed as a thirty (30) day average.

(5) Daily maximum and monthly average WQBELs are determined using the lowest LTA calculated in subdivision (4) as follows:

(A) The daily maximum WQBEL is calculated as follows:

Where: $\sigma^2 = \ln(CV^2 + 1)$.

(B) The monthly average WQBEL is calculated as follows:

Where : $\sigma_n^2 = \ln(CV^2/n + 1)$.

z_{95} = 1.645 (95th percentile probability basis).

n = Number of samples per month. A value of ten (10) will be used unless the discharger demonstrates that an alternate value is more appropriate.

(C) The values of 1.0 TU_a and 1.0 TU_c will be the most restrictive WQBELs established in an NPDES permit for WET.

(d) Notwithstanding the provisions of subsection (c), WQBELs for the criteria listed in section 11.4(d) of this rule shall be developed to be consistent with the models used in that subsection.

(e) WQBELs in an NPDES permit for metals calculated from a dissolved water quality criterion contained in 327 IAC 2-1.5 shall be expressed in the permit as the total recoverable metals fraction unless all approved analytical methods for the metal inherently measure only its dissolved form, such as hexavalent chromium.

(f) Water quality-based effluent limitations for cyanide, calculated from a criterion for free cyanide contained in 327 IAC 2-1.5, shall be limited in the permit as free cyanide and monitored in the effluent using the "Cyanides Amenable to Chlorination" (CATC) method (Standard Methods for the Examination of Water and Wastewater, Method 4500-CN G). The commissioner may approve the use of the "Weak and Dissociable Cyanide" method (Standard Methods for the Examination of Water and Wastewater, Method 4500-CN I) if the applicant demonstrates that interferences render the CATC method inaccurate. The commissioner may include additional monitoring, limitations, or other requirements in a permit, on a case-by-case basis, if the additional requirements are necessary to ensure that water quality standards will be attained.

(g) Whenever a WQBEL is developed, unless otherwise provided in subdivision (3) or (4), the WQBEL in the NPDES permit shall be expressed as both a concentration value and a corresponding mass loading rate as follows:

(1) Both mass and concentration limits shall be based on the same permit averaging periods such as daily, or monthly averages, or in other appropriate permit averaging periods.

(2) The mass loading rates shall be calculated using effluent flow rates that are the same as those used in establishing the concentration-based WQBELs.

(3) For pollutants or parameters that cannot appropriately be expressed in terms of mass (such as pH, temperature, radiation, bacteria, or dissolved oxygen) mass limits are not required.

(4) A discharger may request tiered mass limits for a discharge that increases as a result of wet weather flow. As used in this subdivision, "tiered mass limits" consists of two (2) sets of mass limits. One (1) set shall be based on the dry-weather effluent flow determined under section 11.4(a)(9) of this rule and the stream design flow under section 11.4(b) of this rule. The second set shall be based on an effluent flow and stream flow under wet weather conditions.

(h) When a WQBEL for a pollutant is calculated to be less than the level of quantitation (LOQ) the following conditions apply:

(1) The calculated WQBEL shall be established as the limit in the NPDES permit.

(2) The analytical method, level of detection (LOD), and LOQ shall be specified as follows:

(A) The commissioner shall specify in the permit the most sensitive, applicable, analytical method, specified in or approved under 40 CFR 136 or by the commissioner, to be used to monitor for the presence and amount in an effluent of the pollutant for which the WQBEL is established; and shall specify in accordance with clause (B), the LOD and LOQ that can be achieved by use of the specified analytical method.

(B) The LOD and LOQ shall be determined as follows:

(i) The method detection level (MDL) shall be used as the LOD unless the permittee demonstrates that a higher LOD is appropriate because of effluent-specific matrix interference.

(ii) The LOQ shall be the minimum level (ML) specified in or approved under 40 CFR 136 for the method for that pollutant. If no such ML exists, or if the method is not specified or approved under 40 CFR 136 or by the commissioner, the LOQ shall be calculated by multiplying the LOD by three and eighteen-hundredths (3.18). The commissioner may specify a higher LOQ if the permittee demonstrates that a higher LOQ is appropriate because of effluent-specific matrix interference. Other methods for deriving an LOQ may be approved by the commissioner if the method is scientifically defensible.

(3) Compliance with the WQBELs for the pollutant shall be determined as follows:

(A) When a daily maximum WQBEL is less than the LOD specified in the permit:

(i) effluent levels of the pollutant less than the LOD are in compliance with the maximum WQBEL; and

(ii) effluent levels greater than the LOD but less than the LOQ are in compliance with the maximum WQBEL, except when confirmed by a sufficient number of analyses of multiple samples and use of appropriate statistical techniques.

(B) When a daily maximum WQBEL is greater than the LOD specified in the permit but less than the LOQ specified in the permit, effluent levels of the pollutant less than the LOQ are in compliance with the WQBEL.

(C) To determine compliance with a WQBEL expressed as a daily maximum mass limitation, the LOD and LOQ shall each be converted to a mass value, using appropriate conversion factors and the same effluent flow used to determine the mass-based WQBEL, before applying the provision of clauses (A) and (B).

(D) When a monthly or weekly average WQBEL is less than the LOQ specified in the permit, a monthly or weekly average effluent level less than or equal to the respective monthly or weekly average WQBEL is in compliance with the monthly or weekly average WQBEL. Daily effluent values that are less than the LOQ, used to determine the monthly or weekly average effluent levels less than the LOQ, may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the LOD, and applying appropriate statistical techniques, a value other than zero (0) is warranted.

(4) When a WQBEL is less than the LOD, the commissioner may require a period of accelerated monitoring in a permit, when the measured effluent level is between the LOD and LOQ, for the purpose of collecting additional data to apply the statistical analysis referenced in subdivision (3)(B) and (3)(D).

(5) When a WQBEL is less than the LOQ, special conditions may be included in the permit to better quantify the levels of pollutant present in the discharge. These special conditions may include, but are not limited to, the following:

(A) Fish tissue sampling.

(B) Caged-biota studies.

(C) Whole effluent toxicity (WET) tests.

(D) Limits on internal wastestreams.

(E) Monitoring requirements on internal wastestreams.

(F) Development of a more sensitive analytical procedure.

(G) Monitoring for surrogate parameters.

(H) Waterbody bioassessment.

(6) The permit shall contain reopener clauses authorizing modification or revocation and reissuance of the permit to:

(A) include more stringent monitoring requirements or conditions if new information generated as a result of accelerated monitoring conducted in accordance with subdivision (4), or special conditions included in the permit in accordance with subdivision (5) indicates the likely presence of the pollutant in the discharge at levels above the WQBEL; and

(B) specify the use of a different analytical method if a more sensitive analytical method has been specified in or approved under 40 CFR 136 or approved by the commissioner to monitor for the presence and amount in the effluent of the pollutant for which the WQBEL is established; and shall specify in accordance with subdivision (2)(B), the LOD and LOQ that can be achieved by use of the specified analytical method.

(7) The commissioner shall include a condition in the permit requiring the permittee to develop and conduct a pollutant minimization program (PMP) for each pollutant with a WQBEL below the LOQ in accordance with the following:

(A) The goal of the pollutant minimization program shall be to maintain the effluent at or below the WQBEL. The pollutant minimization program shall include, but is not limited to, the following:

(i) Submission of a control strategy designed to proceed toward the goal.

(ii) Implementation of appropriate cost-effective control measures, consistent with the control strategy.

(iii) Monitoring necessary to monitor the progress toward the goal.

(iv) An annual status report that shall be sent to the commissioner, including the following:

(AA) All minimization program monitoring results for the previous year.

(BB) A list of potential sources of the pollutant.

(CC) A summary of all actions taken to reduce or eliminate the identified sources of the pollutant.

(v) A pollution minimization program may include the submittal of pollution prevention strategies that use changes in production process technology, materials, processes, operations, or procedures to reduce or eliminate the source of the pollutant.

(B) No pollution minimization program is required if the permittee demonstrates that the discharge of a pollutant with a WQBEL below the LOQ is reasonably expected to be in compliance with the WQBEL at the point of discharge into the receiving water. This demonstration may include, but is not limited to, the following:

(i) Treatment information, including information derived from modeling the destruction or removal of the pollutant in the treatment process.

(ii) Mass balance information.

(iii) Fish tissue studies or other biological studies.

(C) In determining appropriate cost-effective control measures to be implemented in a pollution minimization program, the following factors may be considered:

(i) Significance of sources.

(ii) Economic and technical feasibility.

(iii) Treatability.

(D) The permit shall contain a reopener clause authorizing modification or revocation and reissuance of the permit to revise (such as more or less frequent monitoring) or remove the requirements of this subdivision if supported by information generated as a result of this subdivision.

(i) The determinations under this subsection regarding the consideration of intake pollutants, as defined under section 11.5(b)(4)(A) of this rule, shall be made on a pollutant-by-pollutant, outfall-by-outfall basis. This subsection applies only when the concentration of the pollutant of concern upstream of the discharge, as determined under section 11.4(a)(8) of this rule, exceeds the most stringent applicable water quality criterion for that pollutant. In addition, this subsection applies only in the absence of an EPA approved TMDL applicable to the discharge, or in the absence of an assessment and remediation plan submitted and approved in accordance with section 11.4(a)(2) of this rule. The requirements of section 11.5(b)(3)(A) of this rule shall also apply to this section. The following procedures shall be used in the consideration of intake pollutants in establishing WQBELs:

(1) When an intake pollutant is from the same body of water, as defined under section 11.5(b)(4)(B) of this rule, and the discharge and the facility meet the conditions in section 11.5(b)(4)(C)(i)(BB) through 11.5(b)(4)(C)(i)(EE), the following procedures apply:

(A) The commissioner may establish effluent limitations allowing the facility to discharge a mass and concentration of the pollutant that are no greater than the mass and concentration of the pollutant identified in the facility's intake water (no net addition limitations). The permit shall specify how compliance with mass and concentration limitations shall be assessed. No permit may authorize no net addition limitations that are effective after March 23, 2007. After that date, WQBELs shall be established in accordance with section

11.5(d) of this rule.

(B) Where proper operation and maintenance of a facility's treatment system results in removal of a pollutant, the commissioner may establish limitations that reflect the lower mass or concentration, or both, of the pollutant achieved by such treatment, taking into account the feasibility of establishing such limits.

(C) For pollutants contained in intake water provided by a water system, the concentration of the intake pollutant shall be determined at the point where the raw water supply is removed from the same body of water, except that it shall be the point where the water enters the water supplier's distribution system where the water treatment system removes any of the identified pollutants from the raw water supply. Mass shall be determined by multiplying the concentration of the pollutant by the volume of the facility's intake flow received from the water system.

(2) Where the pollutant in a facility's discharge originates from a water of the state that is not the same body of water as the receiving water, as determined in accordance with section 11.5(b)(4)(B) of this rule, WQBELs shall be established based upon the most stringent applicable water quality criterion for that pollutant.

(3) Where a facility discharges intake pollutants that originate in part from the same body of water, and in part from a different body of water, the commissioner may apply the procedures of subdivisions (1) and (2) to derive an effluent limitation reflecting the flow-weighted average of each source of the pollutant, provided that adequate monitoring to determine compliance can be established and is included in the permit.

(Water Pollution Control Board; 327 IAC 5-2-11.6; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1457; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3379; errata, 26 IR 3884)

327 IAC 5-2-11.7 Great Lakes system dischargers interim antidegradation implementation procedures for outstanding state resource waters

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3

Affected: IC 4-21.5-3; IC 13-11-2-24; IC 13-14-8-4; IC 13-15-5-1; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 11.7. (a) In order to implement the antidegradation standard in 327 IAC 2-1.5-4(c), the commissioner shall ensure that the water quality of a waterbody designated as an outstanding state resource water (OSRW) under 327 IAC 2-1.5-19(b) is maintained and protected in its present high quality without degradation by requiring the following:

(1) This subdivision applies to an existing Great Lakes discharger discharging under a valid NPDES permit directly into a waterbody designated as an OSRW.

(A) This clause applies to a proposed discharge of a new pollutant or pollutant parameter for which the monthly average mass discharged would be greater than ten percent (10%) of the unused loading capacity, as defined in subsection (c)(5), for the pollutant or pollutant parameter.

(i) As used in this clause, “new” means a new pollutant or pollutant parameter that is proposed to be discharged and was not being discharged by an existing NPDES permittee as of the effective date of this section.

(ii) Except as provided in subsection (b), (c), (d), or (f), NPDES permit limits for the proposed new discharge of a pollutant or pollutant parameter shall be established as follows:

(AA) Determine the representative background concentration of the pollutant or pollutant parameter in the receiving waterbody using section 11.4(a)(8) of this rule. This concentration value shall be converted to a mass value using the discharge flow determined using section 11.4(a)(9) of this rule.

(BB) The mass value determined in subitem (AA) shall become the monthly average mass effluent limitation.

(B) This clause applies to a proposed increase in the discharge of any pollutant or pollutant parameter that is limited in an existing NPDES permit, which would cause an increase in the monthly average mass effluent limitation in the permit or the monthly average mass effluent limitation calculated under item (ii) when the permit contains an effluent limitation other than a monthly average mass effluent limitation for that pollutant or pollutant parameter. Except as provided in subsection (b), (c), (d), or (f), NPDES permit limits for the proposed increase in the discharge of a pollutant or pollutant parameter shall be established as follows:

(i) Determine the representative background concentration of the pollutant or pollutant parameter in the receiving waterbody using section 11.4(a)(8) of this rule. This concentration value shall be converted to a mass value using the proposed increase in the discharge flow.

(ii) Determine the monthly average mass limitation for the pollutant or pollutant parameter in the existing NPDES permit. If the existing permit does not contain a monthly average mass effluent

limitation for the pollutant or pollutant parameter, the existing weekly average or daily maximum permit limit shall be converted into a monthly average value. If the existing permit does not contain a mass limit for the pollutant or pollutant parameter but does contain a concentration limitation, the concentration limitation shall be converted to a mass value using the discharge flow determined under section 11.4(a)(9) of this rule.

(iii) Add the monthly average mass values determined in items (i) and (ii) together. This sum then becomes the new monthly average mass effluent limitation.

(iv) Notwithstanding items (i) through (iii), if the proposed increase in mass is not a result of an increase in discharge flow, the commissioner shall calculate the monthly average mass effluent limitation on a case-by-case basis.

(C) This clause applies to a proposed increase in the discharge of any pollutant or pollutant parameter that was being discharged as of the effective date of this section but is not limited in an existing NPDES permit, which would trigger the need for a monthly average mass effluent limitation for the existing discharge. Except as provided in subsection (b), (c), (d), or (f), NPDES permit limits for the proposed increase in the discharge of a pollutant or pollutant parameter shall be established as follows:

(i) Determine the representative background concentration of the pollutant or pollutant parameter in the receiving waterbody using section 11.4(a)(8) of this rule. This concentration value shall be converted to a mass value using the proposed increase in the discharge flow.

(ii) Determine the monthly average mass effluent limitation for the pollutant or pollutant parameter for the existing discharge.

(iii) Add the mass values determined in items (i) and (ii) together. This sum becomes the new monthly average mass effluent limitation for the pollutant or pollutant parameter.

(iv) Notwithstanding items (i) through (iii), if the proposed increase in mass is not a result of an increase in discharge flow, the commissioner shall calculate the monthly average mass effluent limitation on a case-by-case basis.

(D) Clauses (A) through (C) do not apply to new or increased discharges of BCCs. If there is a proposed increase in the discharge of a BCC and the proposed increase is attributable to a deliberate action by the permittee and the proposed increase does not qualify under subsection (b) or (c), the commissioner shall deny the request.

(E) The following provisions apply to existing Great Lakes dischargers proposing a new or increased discharge of a pollutant or pollutant parameter.

(i) An existing Great Lakes discharger proposing to:

(AA) discharge a new pollutant or pollutant parameter; or

(BB) increase the discharge of any pollutant or pollutant parameter unless the increase is due to one (1) or more of the reasons provided in subsection (b);

shall first provide written notice to the commissioner. The notice shall specify the new or increased pollutant or pollutant parameter proposed to be discharged and the amount.

(ii) Upon receipt of the notice, the commissioner shall provide public notice and opportunity for comment. The notice shall contain the information required in section 11.2(b)(2)(A) through 11.2(b)(2)(G) of this rule and shall be provided in accordance with the provisions of section 11.2(b)(1) of this rule.

(iii) The commissioner shall determine whether new or different permit limitations are required pursuant to the provisions of clause (A), (B), or (C) for the pollutant or pollutant parameter. The commissioner shall provide notice of the determination in accordance with the provisions under section 11.2(b)(1) of this rule and the applicable provisions of IC 4-21.5-3.

(2) For a new or increased discharge of a pollutant or pollutant parameter from a new or existing Great Lakes discharger into a tributary of an OSRW for which a new or increased permit limit would be required:

(A) section 11.3(a) and 11.3(b) of this rule apply to the new or increased discharge of a pollutant or pollutant parameter into the tributary; and

(B) the discharge shall not cause a significant lowering of water quality in the OSRW.

(C) The requirements of this subdivision will be considered to have been met when:

(i) one (1) or more of the items listed in section 11.3(b)(1)(C)(i), 11.3(b)(1)(C)(ii), 11.3(b)(1)(C)(iii)(BB), 11.3(b)(1)(C)(iii)(FF), or 11.3(b)(1)(C)(iii)(II) of this rule apply; or

(ii) all three (3) of the following are met:

(AA) one (1) or more of the subitems in section 11.3(b)(1)(C)(iii)(AA), 11.3(b)(1)(C)(iii)(CC), 11.3(b)(1)(C)(iii)(EE), 11.3(b)(1)(C)(iii)(GG),

11.3(b)(1)(C)(iii)(HH), or 11.3(b)(1)(C)(iii)(LL) of this rule apply;

(BB) the applicant demonstrates that the increase is necessary; and

(CC) the public notice requirements in subsection (c)(6) are met; or

(iii) all four (4) of the following are met:

(AA) one (1) or more of the subitems in section 11.3(b)(1)(C)(iii)(DD), 11.3(b)(1)(C)(iii)(JJ), or 11.3(b)(1)(C)(iii)(KK) of this rule apply;

(BB) the applicant demonstrates that the increase is necessary;

(CC) the applicant demonstrates that it will result in a net environmental improvement; and

(DD) the public notice requirements in subsection (c)(6) are met.

(D) As used in this subdivision, "tributary of an OSRW" includes the upstream segments of a receiving waterbody when some or all of the downstream segments of the receiving waterbody are designated as an OSRW.

(3) For all discharges directly into an OSRW, the commissioner shall establish the following conditions in the permit applicable to the regulated facility:

(A) The permit shall prohibit the regulated facility from undertaking any deliberate action that would result in a degradation of water quality of the OSRW, unless the action complies with applicable provisions of this section.

(B) Whether or not the permit contains a limitation for a BCC, the permit shall require monitoring for any BCC known or believed to be present in the permitted discharge, from any point or nonpoint source over which the permittee has control. If there is an increase in loading of a BCC, above normal variability, attributable to a deliberate action, the permit shall require the discharger to notify the commissioner of the increase. If the increased discharge of the BCC does not qualify under at least one (1) of the exceptions under subsection (b) or (c) and is attributable to a deliberate action by the permittee, the commissioner shall require elimination of the increase.

(C) Fact sheets prepared pursuant to 40 CFR 124.8 and 40 CFR 124.56 or 327 IAC 5-3-8 shall reflect any conditions developed under clause (A) or (B) and included in a permit.

(b) Subsection (a)(1) does not apply to the following actions:

(1) Increases in loadings of any pollutant or pollutant parameter, including heat, from an existing permitted discharger, that are within the existing capacity and processes and that are covered by the existing applicable permit. These increases include, but are not limited to, the following:

(A) Normal operational variability, including, but not limited to, intermittent increased discharges due to wet-weather conditions.

(B) Changes in intake water pollutants not caused by the discharger.

(C) Increasing the production hours of the facility, for example, adding a second shift.

(D) Increasing the rate of production.

(2) New limits for an existing permitted discharger that are not a result of increases in pollutant loading and will not allow an increase in pollutant loading including new limits that are a result of the following:

(A) New or improved monitoring data.

(B) New or improved analytical methods.

(C) New or modified water quality criteria or values.

(D) New or modified effluent limitations guidelines, pretreatment standards, or control requirements for POTWs.

(3) Bypasses that are not prohibited at 40 CFR 122.41(m) or section 8(11) of this rule.

(4) Increasing the sewered area, connection of new sewers and customers, or acceptance of trucked-in wastes (such as septage and holding tank wastes) by a POTW, provided that the increase is within the existing NPDES permit limits of the facility, there is no increased loading of BCCs from nondomestic wastes, and no significant change is expected in the characteristics of the wastewater discharged.

(c) Notwithstanding subsection (a)(1), the commissioner may permit the actions in subdivision (1), (2), or (3) after providing public notice and opportunity for comment in accordance with subdivision (6). In all cases, the actions shall assure water quality adequate to protect designated and existing uses fully and shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. In addition, the new or increased discharge shall be limited to the minimum necessary to allow the action to occur. The commissioner must approve of the following actions before the proposed new or increased discharge can occur:

(1) The commissioner may allow the following to occur if the applicant demonstrates that the increases are necessary:

(A) Short term, temporary (weeks or months) lowering of water quality.

(B) New or increased discharges of a pollutant or pollutant parameter due to response actions pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (as defined in IC 13-11-2-24), as amended, corrective actions pursuant to the Resource Conservation and Recovery Act (RCRA), as amended, or similar federal or state authorities undertaken to alleviate a release into the environment of hazardous substances, pollutants, or contaminants that may pose an imminent and substantial danger to public health or welfare.

(C) New or increased discharges of a pollutant due to implementation of department-approved industrial or municipal controls on wet-weather flows, including combined sewer overflows and industrial storm water, when there is no net increase in the loading of the pollutant to the OSRW.

(D) New or increased discharges of a wastewater or water treatment additive, as defined in subsection (f).

(E) New or increased discharges of a pollutant or pollutant parameter, when the facility withdraws intake water containing the pollutant or pollutant parameter from the same body of water, and the new or increased discharge of the pollutant or pollutant parameter is due solely to the presence of the pollutant or pollutant parameter in the intake. For the purpose of this clause, "same body of water" has the meaning set forth in section 11.5(b)(4)(B) of this rule.

(F) New or increased discharges of heat that will not result in an increase in temperature:

(i) in a stream, outside of the designated mixing zone, where applicable; or

(ii) in Lake Michigan, as allowed in 327 IAC 2-1.5-8(c)(4)(D)(iv), at the edge of a one thousand (1,000) foot arc inscribed from a fixed point adjacent to the discharge.

(2) The commissioner may allow the following proposed new or increased discharges to occur if the applicant demonstrates that the increases are necessary and that they will result in a net environmental improvement:

(A) New or increased discharges of a pollutant or pollutant parameter that is not a BCC where there is a contemporaneous enforceable decrease in the actual loading of the pollutant or pollutant parameter from sources contributing to the OSRW or to the tributaries to the OSRW such that there is no net increase in the loading of the pollutant or pollutant parameter to the OSRW. The commissioner may approve such an action only if:

(i) the reduction in the discharge of the pollutant or pollutant parameter exceeds the new or increased discharge of the pollutant or pollutant parameter;

(ii) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge have been taken; and

(iii) the new or increased discharge complies with subdivision (4).

(B) An action that will result in a new or increased discharge of a pollutant or pollutant parameter that is not a BCC if the new or increased discharge is necessary to accomplish a reduction in the discharge of another pollutant or pollutant parameter. The commissioner may approve such an action only if:

(i) the new or increased discharge of the pollutant or pollutant parameter is determined to be either:

(AA) less toxic and no more bioaccumulative; or

(BB) less bioaccumulative and no more toxic;

(ii) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge have been taken; and

(iii) the new or increased discharge complies with subdivision (4).

(C) An action that will result in a new or increased discharge of a pollutant or pollutant parameter that is not a BCC if the new or increased discharge is necessary to accomplish a reduction in the release of an air pollutant. The commissioner may approve such an action only if:

(i) the reduction in the discharge of the air pollutant is necessary to meet a state or federal air quality standard or will substantially reduce human exposure to hazardous air pollutants;

(ii) the applicant demonstrates that all reasonable and cost-effective methods for avoiding the new or increased discharge have been taken; and

(iii) the new or increased discharge complies with subdivision (4).

(3) Notwithstanding subdivisions (1) and (2), an action that will result in the new or increased discharge of a pollutant or pollutant parameter that is not a BCC into an OSRW for a facility with an existing NPDES permit for a discharge into that OSRW may be permitted in accordance with the following:

(A) The commissioner shall review and make a tentative decision on the application using the following criteria:

(i) The factors contained in IC 13-14-8-4.

(ii) The applicant has demonstrated that all economically and technically feasible measures have been undertaken to avoid the action that will result in the new or increased discharge of the pollutant or

pollutant parameter including a demonstration that it is not feasible to limit the new or increased discharge to a temporary or short term period.

(iii) The new or increased discharge complies with subdivision (4).

(B) The commissioner shall incorporate the tentative decision on the application into the draft new, renewal, or modified NPDES permit, and the draft permit shall be made available for comment under 327 IAC 5-3-9.

(C) After the close of the public comment period (including any public hearing), the commissioner shall present the tentative decision on the application and the comments received during the public comment period (and public hearing) to the board.

(D) The board shall take into account the criteria in clause (A) in making a recommendation to adopt, deny, or revise the commissioner's tentative decision.

(E) The commissioner shall, after fully considering the board's recommendation, incorporate the final decision on the new or increased discharge into the final new, renewal, or modified NPDES permit issued in accordance with 327 IAC 5-3-14.

(4) A new or increased discharge under subdivision (2) or (3) may be approved under the following conditions, as applicable:

(A) Except for heat, the sum of all previously approved new or increased discharges for the pollutant or pollutant parameter allowed under these subdivisions plus the new requested increase does not exceed ten percent (10%) of the unused loading capacity for the pollutant or pollutant parameter as determined as of the date of the first approved increase.

(B) For heat, one (1) of the following conditions is satisfied:

(i) The new or increased discharge will not result in an increase in temperature:

(AA) in a stream, outside of the designated mixing zone, where applicable; or

(BB) in Lake Michigan, as allowed in 327 IAC 2-1.5-8(c)(4)(D)(iv), at the edge of a one thousand (1,000) foot arc inscribed from a fixed point adjacent to the discharge.

(ii) The new or increased discharge will not result in an increase in waste heat:

(AA) for a stream, that is greater than the amount determined by calculating the number of British thermal units (BTUs) required to raise the temperature of the stream design flow of the receiving stream by one (1) degree Fahrenheit; or

(BB) for Lake Michigan, greater than five-tenths (0.5) billion BTUs per hour.

(5) The following definitions apply throughout this subsection:

(A) "Total loading capacity" means the product of the applicable water quality criterion times the sum of the existing effluent flow and the approved mixing volume for Lake Michigan, or the stream design flow, for the OSRW in the area where the water quality is proposed to be lowered, expressed as a mass loading rate.

(B) "Unused loading capacity" means that amount of the total loading capacity not utilized by point source and nonpoint source discharges. The unused loading capacity is established at the time the request to lower water quality is considered.

The definitions in this subdivision cannot be used to calculate the total loading capacity and unused loading capacity for total suspended solids, dissolved oxygen, heat, radioactive substances, bacteria, and pH.

(6) Upon receipt of a request for application of an antidegradation exception under this subsection, the commissioner shall provide notice, request comment, and schedule and hold a public meeting on the application. The notice, request for comments, and public meeting shall be conducted in accordance with section 11.2 of this rule.

(d) Notwithstanding this section, and in accordance with the antidegradation standard in 327 IAC 2-1.5-4(e), in those cases where the potential lowering of water quality is associated with a thermal discharge granted pursuant to Section 316 of the Clean Water Act and 327 IAC 5-7, the decision to allow such degradation shall be consistent with Section 316 of the Clean Water Act and 327 IAC 5-7.

(e) The department shall report to the board annually as to whether the increases allowed by this section have been determined to have a measurable effect on human health, aquatic life, or wildlife. The department shall use all available information to conduct the evaluation and prepare the report for the board.

(f) Notwithstanding the other provisions of this section, the permittee may use wastewater and water treatment additives, other than BCCs, that have not been approved for use by the commissioner, on an immediate basis under the following conditions:

(1) If the wastewater or water treatment additive is not a biocide, the use of the wastewater or water treatment additive is necessary to comply with permit conditions.

(2) If the wastewater or water treatment additive is a biocide, the use of the wastewater or water treatment additive is necessary to prevent the loss of human life, personal injury, or severe property damage.

(3) The permittee shall orally report information on the use of the treatment additive to IDEM within twenty-four (24)

hours of the time the permittee uses or begins using the treatment additive.

(4) The permittee shall provide written notice, which contains the information required by subsection (c)(1), to IDEM within five (5) days of the time the permittee uses or begins using the treatment additive.

(5) As used in this subsection, "wastewater treatment additive" means a chemical or mixture of chemicals added to wastewater to aid in the treatment of that wastewater.

(6) As used in this subsection, "water treatment additive" means a chemical or mixtures of chemicals added to intake water or nonprocess water, such as water used in a boiler or noncontact cooling water, for the purpose of treating the intake or nonprocess water for use in the facility. Examples of uses for water treatment additives include slimicides, biocides, molluscides, and corrosion inhibitors.

(7) The permittee may use the authorization under this section for the period of time necessary to meet the conditions in subdivision (1) or (2).

(Water Pollution Control Board; 327 IAC 5-2-11.7; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1461; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3380; filed Jul 30, 1998, 4:55 p.m.: 21 IR 4522; filed Jun 30, 1999, 2:34 p.m.: 22 IR 3380; filed Sep 26, 2000, 1:36 p.m.: 24 IR 284; errata filed Jan 2, 2001, 9:48 a.m.: 24 IR 1356)